

VOLUME 7, NO. 1 - OCT. 1984

- QUARTERLY -

**GREAT LAKES EDITION** 

## Working on the Great Lakes - 1913



As Told by the Chief Marconi Qperator and Inspector

THE MARCONIGRAPH \* 1913



#### Working on the Great Lakes

By Laramie C. Dent

Chief Marconi Operator and Inspector of the Lake Michigan Division

W IRELESS operators coming from either coast to the Great Lakes invariably wonder at what seem to be very short distances worked with wireless when compared with the distances worked on the ocean. This deficiency in transmission and reception of wireless messages on the Great Lakes is generally attributed to the prevailing atmospherical conditions, the proximity of boats to the shore and the size of the boats compared with the great ocean liners.

In discussing the subject of atmospherical conditions on the Great Lakes it may be stated that this is one question pertaining to wireless telegraphy to which scientists not alone here but all over the world are giving the closest attention.

Upon this condition more than any other depends the success or failure of radio transmission. It is no longer a question of apparatus. With the mechanical problems solved, the atmospherical conditions are next to be understood and overcome. The mastering of these should mean absolute success in radio communication.

There is no standard scale or measure which we use to show the effect of the atmosphere on wireless waves; however, we may compare the effect in one portion of the globe with that of another portion and draw some interesting conclusions therefrom.

We will compare the effect of conditions on the Great Lakes with the effect in another locality, say, the Pacific Coast

It will be noticed first that there are two conditions of atmosphere to be considered. They are: absorption and static. Absorption effects the transmission of signals and the static effects the reception of signals. The absorption of waves by the atmosphere is infinitely greater on the Great Lakes than on the Pacific Coast; due to the air centaining less moisture on inland lakes than on the coast, and to the sun's rays having less penetrating and absorbing effect there than on the lakes. With the limited knowledge obtained relative to absorption of waves a satisfactory explanation of the phenomena cannot be given, but, like the fundamental of electric waves, electricity, we deal with its effect, not its elements. It will suffice to say then, that this is an effect of conditions not to be overlooked and this effect is more pronounced in the vicinity of the Great Lakes than in any other part of this country.

Static, the electrical condition of the atmosphere, varies in different portions of the country. Static and electrical storms are very bad on the Great Lakes in the summer, but are not so obstructive in the winter. The heaviest static an operator has to contend with on the lakes is on bright but sultry and hot days, but on the Pacific the only static that interferes with signals is found at night, for while there are no electrical storms on the Pacific Coast and one never sees lightning and seldom hears thunder, on the lakes lightning flashes come in on the aerial in such quantity

as to be dangerous to life and property. It may be stated that static does not cause the signals to become weak, but, on the contrary, seems to make them stronger, but the static itself makes so much noise in the receivers that the signals are rendered unreadable. There is always more or less static on the lakes, while on the Pacific it is infrequent and never so strong as on the lakes.

Proximity of boats to the land: We know that the earth absorbs electric waves more readily than water, consequently a greater distance will be worked by a wireless set over water than over land. Let us see how this works out on the lakes. The boats are always close to the shore, and this has its effect on the waves sent out from them.

Lake Michigan may be used as an example. A boat will easily work from one side to the other, but to work from the north end of this lake to the south end requires a high power station. In a sense, this would be working over water all the way, but as the width of the water is very small compared with the length, the land has apparently the same effect as if waves were being sent entirely over land. Ether waves traveling from one end of Lake Michigan to the other may be compared to the flow of water in a small pipe. The friction on the pipe holds the water back to a great extent, in the same way that the shore lines on each side of the lake interfere with the waves traveling between them. Every point of land extending into the lake catches these

Half a Century Ago



on the Great Lakes wayes and absorbs them, and every

waves and absorbs them, and every body of water extending into the land forms a basin which acts as a condenser and loads itself with electric energy from these waves.

The size of the vessels: The ships on the lakes, as a rule, are very much smaller than those on the ocean. This limits the size of the aerial which can be used, and, generally speaking, the higher the aerial wires the better the results obtained from the wireless set.

Yet, with all the disadvantages, the vessels on the Great Lakes have better wireless protection than those off either coast, for there are more land stations in operation to-day on Lake Michigan than on the Pacific Coast from Canada to Mexico It must be remembered that in case of accident to a ship it is not so important to be able to work with some station several hundred miles away. The station close at hand which would be able to inform a nearby ship of the disabled vessel's plight so the rescuing craft may speed to her assistance without delay, is the station of greatest consequence and benefit. So we on the Great Lakes are not at any great disadvantage, even if we do not work the long ranges of the oceangoing vessels



\*REPRINTED FROM MAY 1413 ISSUE THE MARCONIGRAPH



ASTABULA LIGHT HOUSE ENTRANCE 1933

HISTORICAL EDITION - EARLY DAY WIRELESS ON THE GREAT LAKES



#### SPARKS JOURNAL USPS 365-050

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## Early Days of The Wireless



## A Historical Record

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### The Inland Seas of America

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### A SEAMAN'S MEDITATION

When I set out on a voyage, I think of the voyage the Lord sends me on, a voyage through life.

at myself, for I am in my very being just an empty vessel carrying my soul on such a

From the bridge I watch the bows part the calm sea as we move slowly out of harbor, so then I remember how gently I am guided out into the streams of life to face all that might come across my course.

When I see a fog bank, I think of the unknown, the hidden rocks, the hazards of life that I must be able to deal with. But when I turn to the Radar, my everseeing eye in times such as these, so then do I see Christ, my guide, my friend, my aid in steering my vessel clear of such hazards.

I look at the Helmsman, and I think of Christ my unfaltering Helmsman, I look at the Auto Pilot, and I think of Him ever true to the course of my voyage, keeping my vessel from straying off the shipping lanes.

When I visit the engine room and see those massive engines driving this ship through these waters, so do I remember the Power of Faith and Prayer, giving me the will to plough

on through the seas which separate me from my destination.

rough life.

When I look up at my ship, my home for e next few weeks of the sea voyage, I look strong cord of steel, then do I remember all the links in my chain, Faith, Prayer, Belief, Trust, and at the end of my chain, Christ, my anchor, my tether to keep me from straying into troubled waters, but to stay and weather out the storm.

And as I near my destination I see the tugs come to meet me and assist me alongside the Berth, so then do I think of so many friends of Christ who come to assist me when I am unable to manage alone.

Once the vessel is alongside the Berth and the gangways put in place. I glance round the bridge, no more the mellow green glow from the navigating instruments, no more the movement of the compass or the clicking of the Gyro repeater, I glance at the Engine Room Telegraph and see the pointers at 'Finished with Engines', so then do I think of my human vessel and realize that it is time to cast it off and go ashore, and as I set foot on land. His land, I am sure I shall hear Him call 'My Son' ..., and I shall answer gladly ...' Father ... I'm Home.' Anon.



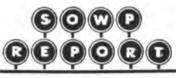
## SOCIETY OF WIRELESS PIONEERS.

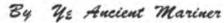
## Our Wavelength — Preserving Communications History

THE FOUNDER'S PAGE











During my early years in Radio, I found that nothing was 'statusquo.' When I thought I had found the 'ultimate' in a coherer detector, it was not long before the electrolytic was the rage and the coherer went overboard. Just as we became comfortable with the electrolytic detector, along came the crystals (galena, carborundum, etc.) and made the electrolytic detector, a 'pile-of-junk!'. Then came the audiotrons and tubes in various sizes, shapes and types

The big 'earthquake' in radio came with the invention of the transistor and all of a sudden 'solid-state' was "IN" and all of our other highly sophisticated communication equipment was "OUT"! It all goes to prove, of course, that Radio had been about as fickle as style changes in clothing. The hats we wore from the Derbys, on through the Hamburg years, to wide and narrow brims, caps, country westerns, Tam o'Shanters and now the miniturized sombreros. All designed to 'churn' the market and cause us to be disenchanted with the "old stuff" and spend our money on the new "IN" stuff. The constant change in feminine attire is not the only field affected by the capriciousness and vicissitudes of life. Witness the constant changes in the communications and electronics fields --- and ---you ain't seen nothin' yet! The Utopian Era may be close but it isn't just around the corner.

In Greek mythology, the Gods gave Pandora a box with the admonition 'never open it'! She did, of course and it released all of our worldly ills. During my 'salad-days' as a youthful entrepreneur, owning a retail radio store in the City of Los Angeles, (circa 1923) I held the agency for a small crystal radio set trademarked "Pandora's Box" which sold by the hundreds.

Six decades have rolled by since then and I often wonder if -"What Marconi and his early day colleague - pioneers in the fields of science and electricity --- "had wrought"? Was it the real Pandora's Box which I helped impose upon mankind? "Wireless" was the magic word, but its origin was not Greek - hence, hopefully, the anthithesis of what the little box was capable of doing to us from the ancient world of mythology.

...Or, did I give a 'king-size' shove in releasing all of today's ills upon mankind in my zealous effort to make a few 'fast-bucks' on those little boxes that sold like 'hot-cakes'? I suspect we will never know for sure but think of the pressure "Ye Ed" must have had to endure these many years!

This issue of the Sparks Journal is a step back in time to allow us to savor life the way it was on the Great Lakes during the early decades of our century. I am sure some will enjoy this voyage as we read about life --- as it was years ago and when the pace was not as hectic as it is today.

During my CAA days, I was called upon to check out an interference problem the Pere Margette Ferry boats were experiencing on their run between Ludington and Manitowoc. It seems that one of our radio range stations was too close to their assigned working frequency I was able to change our frequency and solve their problem. During my trips on these large ferry boats, I experienced a taste of "fresh water sailing' and was quite fascinated with them. I know that many of our members 'broke-in' on the Lakes, then made the big jump to Salt Water Sailing. Some stayed - others returned. I hope this will furnish, for our many members, a legacy of wonderful memories.



## The Radio Club of America. Inc.



### A Legacy of Achievement

Founded 1909

The Radio Club of America, founded in 1909 in the age of arc lights, horse cars and side wheel ferry boats, has, over the years become one of the most outstanding organizations in the radio-telegraph and communications field. The Club celebrated its 75th Birthday on Nov. 18 1983. A gala evening at the New York Athletic Club made the "Diamond Jubilee Banquet" an outstanding event.

Pictured above (right) is RCofA President Fred M. Link, receiving the Society of Wireless Pioneer's "WIRELESS ACHIEVEMENT AWARD" in recognition of his many accomplishments. Mr. Link is probably best known as the "Father of Land Mobile Radio." He was long associated with Dr. Lee de Forest and later founded Link Radio which built and supplied much FM equipment for the Army Signal Corps overseas during WW-II. He was also a leader in putting FM Technology into the hands of policemen over the United States and is a recognized leader in FM communication as well as Cellular radio and digital applications - a major challenge for today's professionals.

The Radio Club of America in turn presented their "Fellowship" awards to Society members Paul N. Dane and William A. Breniman.

This year, The Radio Club will further honor the Society of Wireless Pioneers by presenting its Founder and the Editor of the Society's publications and Historical Papers with their annual Ralph Batcher Award which is an honor conferred for ... "assisting substantially in preserving the History of Radio and Electronic Communications". Other SOWP members who have received this recognition in past years include Morgan McMahon [TA-36], 1976; Bruce Kelley - [TA-15]1978; Robert Merriam - [TA-163] 1979; Ed. Raser [35-SGP] 1980; Louis Ramsey Moreau - [TA-25] 1982 and Joseph R. Pavek - [TA-57] 1983.

#### INVITATION

"Bill" Willmot invites all SOWP members in the Florida william C. "Bill" Willmot invites all SOWP members in the Florida area to meet with and attend the monthly lunches of the QWCA members, held on the 3rd Saturday of each month at 11:30am at Batsby's Cocoa Beach, FL. Guests always welcome. Bill Willmot's QTH: 1630 Venus St., Merritt Island, FL 32935. Ham Call - K4TF.

We have a few left - \$2.75 each Give 4X magnification. Helpful to members with reading problems. Excellent for small print.

ELECTION OF OFFICERS
Ballots will be mailed all sustaining members in about 2 weeks.

AMATEUR RADIO CALL BOOK We hope to mail by Nov. 1st. NET CHOPS - Please update ASSAP.

NEXT EDITION OF SPARKS JOURNAL We regret that not all of the stories and material received could be included in this issue on the Great Lakes. We will try to include those left in the next issue which will carry many stories unpublished - Tales of the Wireless Pioneers.

Society of Wireless Pioneers Inc. P.O.Box 530, Santa Rosa, Calif. USA.



## Half a Century Ago on the Great Lakes

By: Harold J. Burhop, SGP 99

I had the pleasure of operating stations WMX, WDR, NAJ, WMW and WGO to name a few - plus ships on the Great Lakes from 1916

The station at DULUTH ( WDM ) was located on top of the 700' hill upon which Duluth is built and could be reached via an inclined railway which has long since disappeared. Mackinac Island prohibits motor vehicles on the island, but at one time Operator Tellefson ferried his car to the island and ran it up the hill to the station. After the arrest, Tellefson fought the charge but lost out. "WMX" at Manistique was located in a railroad box-car alongside the Ann Arbor R. R. station. "WMW" at MANITOWOC had the unusual distinction of being located on top of the Rahr Bros. Brewery. "WBL" Buffalo was serviced with 25 cycle AC and so the rotary gap had the 25-cycle purr in it and could be instantly recognized. "WGO" CHICAGO was on top of the Congress Hotel and "WME" MILWAUKEE was on top of the Railway Exchange Building.

There were 16 American and 8 Canadian shore stations on the Great Lakes at that time. Of the 14 American MARCONI stations, all but one had the old 2KW UNITED WIRELESS "coffin" transformers with the 40,000 Volt secondary, condenser consisting of a dozen leyden jars in series-parallel in a mahogany holder, the Marconi I' brass disc and rotating stud for the spark gap.

"WGO" at Chicago had a 500 cycle quenched gap transmitter. The eight Canadian shore stations had identical 240 cycle sunchronous transmitters with "pump-handle" keys and they sounded so similar that you couldn't tell which one you were hearing until you caught the call letter. "NAJ" had a 5 KW 500-cycle spark and a 30 KW arc set.

There were almost 100 passenger ships and over 400 freighters and railroad car ferries operating on the Great Lakes. Most of these carried operators. WFD, the S.S. NEVADA, was a modern icebreaker commissioned in 1915, and was chartered in the Spring by the Coast Guard to assist in opening a channel through the ice of the "Straits of Mackinac" and Whitefish Bay in Lake Superior.

The SS CHRISTOPHER COLUMBUS was a passenger whaleback, shaped like a huge fat cigar. There were quite a few whaleback freighters, now entirely done away with. Some of the older passenger ships, such as the SHEBOYGAN, CITY OF DETROIT, SEE-ANDBEE and others, were sidewheelers. "WCA", the SS Juniata, already old in 1916, has been modernized and converted into the "SS MILWAUKEE CLIPPER" and is still crossing the lake on schedule.

My first 1916 "Lake Trip" was on "WCD", the S.S. OCTORARA. The ship docked at the Kemp Docks in Sault Ste. Marie. We went to see the sights in the city with Eric Lyons, first OPerator. We got back just in time to see the Octorara about 100' from the docks. Lyons asked me if I could run? I told him I could, so he said..."Lets run for it" so we started out...and run we did. For about a mile and a half to the Soo Locks, just in time to step aboard as the Octorara was locking through. We apparently were



not missed. At the Soo, the U. S. Steel service ship OJIBWAY will run alongside freighters plying the St. Mary's River connecting Lakes Superior and Huron, and with her own hoists deliver groceries and supplies. At Detroit a mail boat operates similarly on the Detroit River connecting Lakes Erie and St. Clair. Iron ore, wheat and coal are the principle lake vessel cargoes.

Some of the pre World War 1 operators were Messrs. Dent, Marconi Manager at Chicago WGO, Wilkensen at WME Milwaukee, Biesemeyer at WMN Manitowoc, Tellefson at WHQ Mackinac Island, Judge at WMX Manistique, Mowery at WLD Ludington; Slyfield at WFK Frankfort; Lyons and Burhop on the SS Octorara; Piersol on the Nevada, Alabama, Virginia, Georgia and others; Matthews and Prenzel on the Carolina, Tellefson on the Christopher Columbus;other pre-war (WW-1) operators included Dibbell on the S. S. EASTLAND when it turned over in Chicago Harbor in 1914 with the loss of almost 1,000 lives; O'Keefe on the Yacht Lydonia. The SS Nevada carried Kilbourne and Clark equipment.

When navigation opens in March, the Coast Guard ice-breakers open a channel through the ice of Whitefish Bay into Lake Superior which almost never freezes over. Ships are held at the Soo, then escorted through the ice. Watching a convoy of 27 freighters and 2 cutters makes a very fascinating sight.

The Soo locks have 4 locks in parallel on the American side, plus one on the Canadian side. They can also be used simultaneously. The new second lock, under modernization and construction for 4 years has just reopened. It is 1,200 feet long, 110 feet wide and 31 feet deep. It is the largest lock in the world. The Soo locks handle more tonnage than Panama and Suez combined - even before Suez was closed by the latest conflict and they are the busiest locks in the world. During a peak year they average better than 130 ships a day for the entire 9 months of the navigation season.

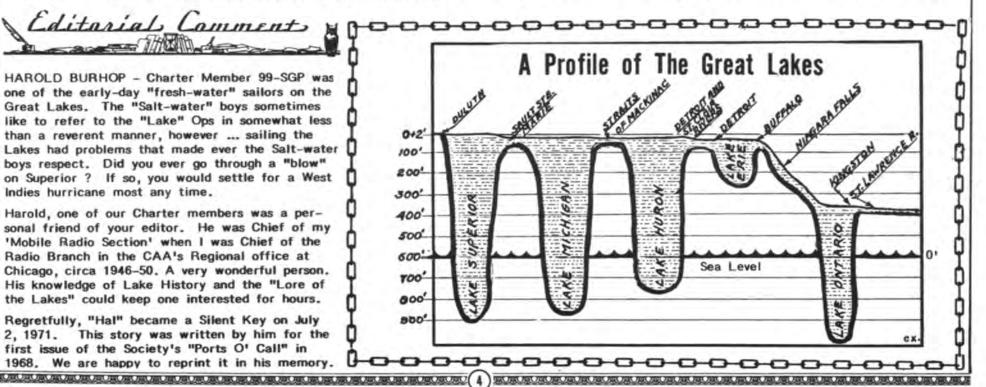
There are several canals on the Great Lakes waterway. The "Portage" Ship Canal cuts through the Keweenaw Penninsula near Houghton, Michigan. The Sturgeon Bay Canal cuts through the Door Country Peninsula at Sturgeon Bay, Wisc. The Neebish Rock Cut in the St. Mary's River provides a separate downbound channel.

Now the "wireless" and operators have largely been replaced by radiophone equipment handled by the skippers and their mates. The Straits of Mackinac ferries have been replaced by the great Mackinac Bridge which is 5 miles long, 155' above the water, and the suspension cables containing 42,000 miles of cable wire are over two

HAROLD BURHOP - Charter Member 99-SGP was one of the early-day "fresh-water" sailors on the Great Lakes. The "Salt-water" boys sometimes like to refer to the "Lake" Ops in somewhat less than a reverent manner, however ... sailing the Lakes had problems that made ever the Salt-water boys respect. Did you ever go through a "blow" on Superior ? If so, you would settle for a West Indies hurricane most any time.

Harold, one of our Charter members was a personal friend of your editor. He was Chief of my 'Mobile Radio Section' when I was Chief of the Radio Branch in the CAA's Regional office at Chicago, circa 1946-50. A very wonderful person. His knowledge of Lake History and the "Lore of the Lakes" could keep one interested for hours.

Regretfully, "Hal" became a Silent Key on July 2, 1971. This story was written by him for the first issue of the Society's "Ports O' Call" in 1968. We are happy to reprint it in his memory.



## Wireless History was made on The 'Lakes'

Harold J. Burhop, SGP 99

feet in diameter (241"). Incidently the only time that pedestrians are permitted on this bridge is on Labor Day forenoon, when the annual walkathon is put on. My wife and I have walked it twice, the last Labor there were 15,500 walkers.

Much of the material for this article as requested from my old friend Bill Breniman is taken from memory, and therefore may contain some errors. I wish to thank Myron D. Piersol, WOTYW of St. Louis and W. C. Gross, W8BKM on Conneaut, Ohio, for supplying me with considerable data of value.



Commenting on the foregoing article by Hal Burhop, member Charles O. "Sam" Slyfield said the following should be included: Tom Joynes, Frankfort (WFK); Lewis Hull, Manistique (WMX); Tom Fountain, Milwaukee (WME); Joe Clark, Ludington (WLD); Al Miller, also WLD; O.R. Redfern, and Melvin Ellis, Duluth (WDM). Also Erinie Nelson, Calumet (WCM). E. A. Nicholas was Supt. of Marconi Co. at Cleve-land (WCX) and A. E. Jackson, Construction Supvr. for Marconi at Cleveland. J. F. Dillon was the ONLY R. I. in the whole Great Lakes area in 1915 but later it was divided into two parts with S. W. Edwards, R. I. at Detroit and E. A. Beane, R. I. at Chicago. Incidentally, "Sam" built the first radio compass ever used on Lake Michigan as an experiment. This was in 1922.

Another SWP member - Charles M. Dibbell - (367-SGP) was also a "Lakes" Op. but before "Sam's" time. "Doc" Dibbell was on the Lakes in 1909 at Duluth (DM). He was on the S. S. Eastland in 1915 when she tipped over at the Clark Street Bridge with loss of about 900 lives. Due to hostility toward the crew of the ship after the accident, Doc was assigned to the S. S. Minnesota (Chicago-Buffalo) by L. C. Dent who was Div. Supt. for Marconi. Other Ops. recalled by Doc include Tom Joynes at TM (Grand Marais) 1910 and Rosco O. Redfern Chief at Duluth with Jimmy Grote.

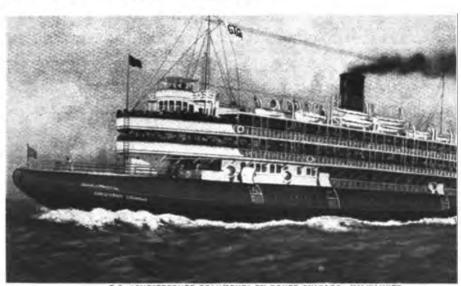
Another "Lakes" operator and a good friend and shipmate of "Sam" Slyfield is member Robert O. "Bob" Cook (352-P) who was Sound Director for the Walt Disney Studios. He became acquainted with Hal Burhop (99-SGP), deceased (Cancer) - 7-2-71 at Rochester, MN) while in high school at NTY/WMW. Bob attended Dodge Radio School at Valpariso and worked Great Lakes ships and stations until 1927. Bob helped to originate the first West Coast NATIONWIDE B. C. Network program with Paul Whitman for Old Gold. He was shipmates with Sam at WFK Frankfort. Hal Burhop saw early service on the Lakes when he took out the SS OCTORARA/WCD in the year 1916. Later after a stint in USN, he was the CAA for many years.



SS. Iroquois/KVF - Clyde SS. Co. shown at Dock, South Haven Michigan. From Reynold T. Warner collection.

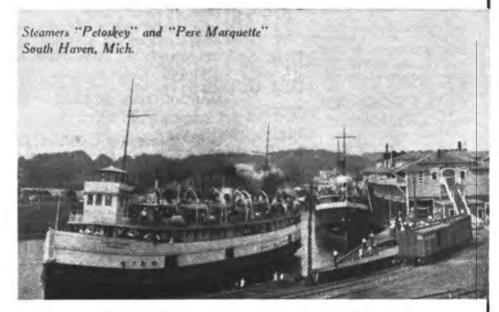


Excursion Steamer ARIZONA sailed the Great Lakes from Chicago. Member R.G.H. "Matty" Mathews was Chief on her for a long time. (Call "PQ"/WFI.)

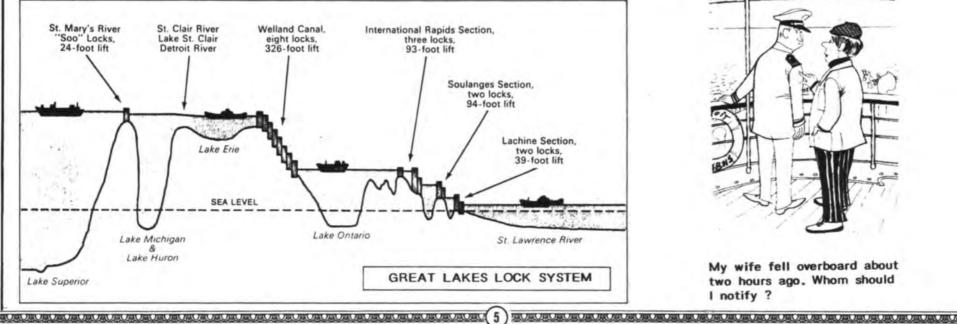


S.S. "CHRISTOPHER COLUMBUS" EN ROUTE CHICAGO-MILWAUKEE

SS. CHRISTOPHER COLUMBUS / KC GOODRICH SS. LINES, CHICAGO & MILWAUKEE - 170 MILE. DECK PROMENADE OVER HALF MILE LONG Picture from collection of Ray T. Warner 213-SGP



Steamers "Petosky/WDH and Pere Marguette/WDA at South Haven Michigan. Ray Warner collection.





My wife fell overboard about two hours ago. Whom should I notify ?

(Continued from Page 5)

## Early Radio Stations of the Great Lakes

By : Harold J. Burhop, SGP 99

Following are some of the GREAT LAKE call letters as of April

UNITED WIRELESS TEL.

GO CHICAGO, ILL MILWAUKEE, WISC. MANITOWOC, WISC. MK MW DM DULUTH, MINN. GM GRAND MARAIS, MINN. CM CALUMET, MICH. HX LUDINGTON, MICH. GRAND HAVEN, MICH. GH SAULT STE MARIE, MICH. SH MACKINAC ISLAND, MICH. GRM GRAND RAPIDS, MICH. HOLLAND, MICH. н DS SOUTH HAVEN, MICH. BH BENTON HARBOR, MICH. ALPENA, MICH. PN DZ LANSING, MICH. DR DETROIT, MICH. MR MARQUETTE, MICH. ISLE ROYAL, MICH. IC CA CONNEAUT, OHIO TOLEDO, OHIO DX

#### GRAHAM & MORTON T. CO.

BUFFALO, NEW YORK

CLEVELAND, OHIO

ERIE, PENNA

AQ CITY OF BENTON HARBOR CITY OF CHICAGO PQ WQ CITY OF TRAVERSE

#### GRAHAM & MORTON TRANS. CO.

NQ HOLLAND SQ **PURITAN** 

CX

KN

BF

SHENANGO S. S. CO. WM P. SNYDER SND SNA SHENANGO

SNW WILPEN

#### TOMLINSON LINE

OBI SIERRA

#### (UNKNOWN LINE)

AD EASTLAND

PROVIDENCE S. S. CO.

DAM JAMES H. HOYT DGK D. G. KERR DJR JAMES H. REED

VULCAN SS COMPANY

W. B. DAVOCK

#### CANADIAN TOWING CO.

JAMES WHALEN

CHICAGO & DULUTH TRANS.

MAV ALVIN MOI CHILI

MFD W. H. GRATWICH

#### PERE MARQUETTE RR CO.

PM5 PERE MARQUETTE #5 PM17 PERE MARQUETTE #17 PM18 PERE MARQUETTE #18 PM19 PERE MARQUETTE #19 PM20 PERE MARQUETTE #20

#### NORTHERN MICHIGAN TRANSP.

MISSOURI MN MANITOU

YN

#### POSTAL S. S. COMPANY

ILLINOIS

JOHN J. BARLUM THOMAS BARLUM

CHICAGO SOUTH HAVEN LINE

CITY OF SOUTH HAVEN

#### MARQUETTE & BESSEMER NAV.

M&B #1 (Collier) M&B #2 (Car ferry)

MINN. TRAINING SHIP

TRAINING SHIP "GOPHER"

#### GOODRICH TRANSIT

**ALABAMA** BC VIRGINIA DC IOWA **GEORGIA** HC ARIZONA KC

CHRIS. COLUMBUS MC SHEBOYGAN

NO CAROLINA SC INDIANA NO CHICAGO

NORTHERN SS COMPANY

ND NORTHLAND NORTHWEST DETROIT & CLVLD TR. CITY OF CLEVELAND CITY OF DETROIT CG CITY OF ST. IGNACE CF CITY OF BUFFALO CP CITY OF ERIE CLVLD & BUFFALO SS CO. WESTERN STATES

EASTERN STATES WOLVIN LINE

DBO H. P. POPE

#### ACME S. S. CO.

DAB AUGUSTUS WOLVIN DWA WARD AMES DJC JAMES WALLACE

CALL LETTERS OF LAND STNS ---- (ABOUT 1915) -----

#### MARCONI WIRELESS TELEGRAPH COMPANY OF AMERICA

WDM DULUTH, MINN. WCM CALUMET, MICH. WHQ MACKINAC ISL. MICH. WMX MANISTIQUE, MICH. WMW MANITOWOC, WISC. WME MILWAUKEE, WISC. WGO CHICAGO, ILLINOIS WGH GRAND HAVEN, MICH. WLD LUDINGTON, MICH. WFK FRANKFORT, MICH. WDR DETROIT, MICH. WCX CLEVELAND, OHIO WSA ASHTABULA HARBOR, OH WBL BUFFALO, NEW YORK

#### MARQUETTE & BESSEMER NAV. COMPAMY

WEV CONNEAUT HARBOR, OH U. S. NAVAL TRAINING STA. NAJ GREAT LAKES, ILLINOIS

#### CANADIAN MARCONI CO. LTD.

VBA PORT ARTHUR, ONT. VBB SAULT STE MARIE, ONT. VBC MIDLAND, ONTARIO VBD TOBERMORY, ONTARIO VBE SARNIA, ONTARIO

VBF PORT STANLEY, ONT. VBG TORONTO, ONTARIO VBH KINGSTON, ONTARIO.

#### CRAWFORD TRANSP. COMPANY

KENTUCKY TENNESSEE

#### BOOTH TRANSP. COMPANY

**EASTON** AM **AMERICA** 

#### CROSBY TRANSP. COMPANY

NYACK NAOMI

#### PEAVY S. S. COMPANY

DAN FRANK H. PEAVY DFB FRED B. WELLS DUF GEORGE W. PEAVY DNM FRANK HOFFELFINGER

--- "30" "HG"---DE



GRAND HAVEN, MICHIGAN - WGH. Early date station taken by SOMP member R.H.G. Mathews - 1847-SGP. Call was first "GH". Matty [1847-S-SGP first station was 1912 on the SS City of Chicago [PG/WDT]



GRAND RAPIDS, Michigan. "GH" looking toward the Lake. Picture by Matty R.H.G. Mathews 1847-SSGP. Matty became a SK 7-3-82 at age 86 (Per Bruce Kelley)AWA.



STATION - "WTK" CLEVELAND. It was installed in Room 1070 of the Cleveland Hotel. Picture taken in May 1925.



"NAJ" - GREAT LAKES - U.S. NAVY - 1930 B.A. "Art Peavy - 1507-V [W5UZW] contributed this bit of nostalgia. LF at left was a composite rig built from 'left over' spark parts. Work mostly by Ralph Mathew and Fred Schnell (Lts. in USN). Art says a pile of bolts like these old rigs today would put the modern young 'op' in a straight jacket before end of his watch ! Never thought of a 'break-in' with those noisy generators. A bit of nostalgia from the "Windy City".

# SISTER SHIPS OF THE GREAT LAKES

BY - R.P.THETREAU

The S.S. Western States and the S.S. Eastern States were both commissioned in 1902, by the Detroit & Buffalo Transit Company, which later became the Detroit & Cleveland Navigation Company, commonly called "The D&C". The "Western" was used as a pleasure "cruise" ship, and the "Eastern" was used as a passenger and cargo ship, sailing between Detroit and Buffalo. The call letters of the "Western" were "CS", and the "Eastern" had "CE" for about five years, and both ships were "Sidewheelers".

After the D&C Navigation Company took over, around 1915, a contract was signed with the Marconi Wireless Telegraph Company of America, to handle all the D&C ships wireless details, and the "Western" became "WED" and the "Eastern" "WEE", until 1928, when the "Western" became "WTCA" and the "Eastern" was "WTCB", which both held until their final demise.

After RCA/RMCA bought out Marconi in 1920, they renewed the contract to handle all D&C ship wireless gear and details, but until about 1930 the old Marconi type 106 tuner-receivers were left on both ships. Subsequently both ships were equipped with IP-501 receivers, with type B 2 step amplifiers, but tiehout the IP-503 long wave unit. At the same time, RMCA installed RMCA Model ET-8003 "bulk-head" transmitters on both WTCA and WTCB.

This little ET-8003 was an ideal job for the Great Lakes service, as it used push-pull 210 tubes (4) in a self-rectified circuit, which was handled by a 110 volt DC driven motorgenerator, with the alternator output of 110 volts at 1.5 amps at 350 cycles, single phase. This went to a 1500 volt transformer, and the output was a 700 cycle note, which was beautiful copy. This identical installation is now in the Great Lakes Dossin Marine Museum, on Belle Isle, Mich.

As a result of BC station WJR blocking out the 500 kc distress frequency on the old IP-501 receivers, the "new" RMCA type AR-8503 Marine receivers was installed on both WTCA and WTCN in 1945. This receiver was a TRF, tuning from 15 to 600 kc, and used 6K7 RF, 6K7 Detector, 6K7 1st Audio and 6F6 output to headset, and was a pleasure to use, compared to the old cumbersome IP-501. BUT, not for long.

The "Eastern" WTCB was demolished in 1954, and WTCA was decommissioned in 1955, and towed up to Tawas City to be used as a "floating hotel", and the "Western's" first Captain, Lewis C. Mantel (W8VU) was taken out of retirement, to take her up to Tawas City, at the end of a tug's hawser. The Captain has since joined "Silent Keys".

In 1959 at Tawas City, while being scrapped for junk, the "Western" caught fire. After burning for two days, a hawser was warped aboard, and she was towed out to the middle of Lake Huron, where she finished burning and was sunk.

So ends the tale of both "Sister ships".



Does "Davy Jones" have a locker at the bottom of Lake Huron as well as in the Ocean? If so, that is where the Western States ended its career in 1959 - a span of 57 years after launching in 1902. Above is a picture of the Western States - WTCA - taken by R.P."Tate" Thetreau at Mackinac Island on June 8 1944





"DOC" DIBBELL

## THE EASTLAND DISASTER

### Editorial Comments

Member Charles M. Dibbell 367-Sr. SGP was the Radio Operator on the SS. Eastland - WFN on the fateful day of July 24 1915 when the ship rolled over and sank in the Chicago River, Chicago taking some 812 vacationers to their death. Charles Dibbell whom most of us called "Doc" started his wireless career as relief operator at Station "DM" Duluth, Minn. in 1909. Following that he served at Station "GM" Grand Marias and on the SS Barge Lymit, Easton, Wilpen and Snyder before his assignment to the Eastland. Following the tragedy he continued on the Lakes serving on the Minnesota, Nevada and Missouri of the Goodrich Line, then the Car Ferries of the Pere Marquette Railroad ( on No. 17, 19 and 20 until 1918 when he left the 'Lakes" to take up his life long vocation as Veterinarian in Allentown, Pa., Following his father's footsteps, he became a veterinary surgeion and conducted the Allentown Pet Hospital until about 1964 when he retired. Regretfully, Member Dibbell became a Silent Key in the Spring of 1982. He furnished the following story of the Eastland to Mr. T.L. Wirts of the Allentown paper with copy for us. We are printing copy of Mr. Wirtz story.

## Tragic Story by her Radio Officer

BY T.L.WITZ

Sixty years have passed since the Eastland sank in the Chicago River but the tragedy is still fresh in the memory of Dr. Charles M. Dibbell, Allentown's meat and milk inspector.

"You never forget something like that," Dr. Dibbell said today as he recalled the morning of Sunday, July 24, 1915, when 812 passengers on the Eastland lost their lives while thousands of persons watched helplessly from the dock just a few feet away.

Dr. Dibbell, then 19, was radio operator of the Eastland, described as the "greyhound of the Great Lakes," because of her speed and sleek lines.

An estimated 2,400 persons—employes, and families and friends of employes of the Western Electric Co.—were aboard the Eastland that morning. All were anticipating a day of fun and relaxation at the company's annual picnic across Lake Michigan, at Michigan City, Ind., about 45 miles to the east.

#### NO ONE HAD QUALMS

No one doubted the Eastland's ability to get them to their destination. They were aboard the queen of the waters; one of the fastest boats on the lakes with a speed of 25 or 26 knots. What's more, the Eastland was one of the few twin screw boats then in existence. Its boilers had a capacity of 220 pounds of steam, which was considered the ultimate half a century ago.

The Eastland's crew of 72 was satisfied the craft, as it had done before, would complete the trip in about two hours.

(Cantinued on Page 32)

## Half a Century Ago



on the Great Lakes

# GRANDPA'S STEAMBOAT

DAYS

A Pioneer Member. . .

"Tells it as it was from 1908 to 1918"

BY ROSS F. CUTTING 2700 S.SGP

Theodore Roosevelt was president of the USA when I became interested in wireless telegraphy. He had nothing to do with this event! The date was wireless telegraphy. He had nothing to do with this event! The date we 1908, the place, Erie, Pennsylvania. Radio communication was called "wireless" at that time and the business was somewhat disorganized; there were no government regulations to control it. Young fellows interested in science could build their own wireless telegraph rigs for about \$20 by using a Ford spark coil for sending and a pair of earphones connected to a cylind-rical Mother's Oats carton wound with wire and connected to a piece of mineral (galena or silicon) for receiving signals. We amateurs could communicate or even interfere with ship and land station commercial telegraphers.

Competing commercial stations would often try to blanket each other's traffic. The Clark Wireless at Buffalo and Marconi Wireless at Cleveland, Ohio were two of these competitors.

After a few years of working this hobby I developed some telegraphing skill and a list of ship operator friends. One ship operator invited me to visit his ship and told me when he would arrive at the dock in Erie. His name was Herb Rod. I met the schedule and had lunch at the captain's table with the operator and ship's officers. I was enthused with the operator's suggestion that I take the newly established government license examination and secure a license to operate wireless rigs on ships. SO I DID! I secured one of the first licenses issued at Cleveland, Ohio, and within days I was a Commercial wireless operator on a passenger boat running between Cleveland and Detroit on the S.S. City of St. Ignace, on the D. & C. Line.

I had a uniform as gaudy as the band leader in Bamum and Bailey's Circus - gold stripes, brass buttons and a cap to match. I was twenty one years old, getting around the country for the first time and in complete charge of wireless communication on the ship!

wireless was new to most passengers so I was asked questions frequently by passengers on every trip. And, of course, brass buttons, youth, magic wireless, travel on water and all - attracted young ladies to my open, fenced-off office in the grand salon of the ship. This, in turn, led to touring the ship with them, and sometimes sitting out on deck, in the MOONLIGHT, as the walking beam turned the two hugh paddle-wheels on each side of the ship and pushed it past towns we could see on shore by their street lights in the distance. I would meet a new group of girls each day - all summer! Talk about a young man's Garden of EVES! For cat's sake! Wireless was new to most passengers so I was asked questions frequently by

On Saturdays the D & C Line offered excursions - "a day-trip to Detroit and back the same night". On calm days the trip was very enjoyable to the passengers who were made up of club members, church and Sunday School groups, and individuals. At the dock they would come aboard in the morning and were having a lively, gay time anticipating the joyful trip out on the lake.

But when I knew there was a stiff breeze out beyond the pier ends, I knew TWO things the passengers didn't know.

When we finished loading, two steam tugs would chug us down the river to the straight-a-way, let go, and our engines started turning; we passed the ever-blinking lights at pier-end, "port 20 degrees", and were on our way to Detroit

In a matter of minutes we of the crew topside saw a big change starting to take place among the passengers. Many of them sat down on chairs and benches because the FLOOR BECAME UNSTEADY! The ship rolled ever so slightly, slowly back and forth. The younger ones seemed to enjoy this tilting back and forth.

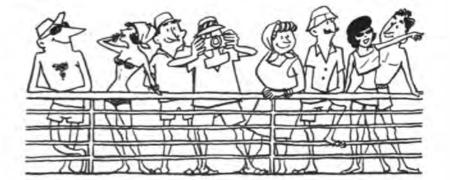
We went farther out into the lake. The roll became more determined. Even some of the younger ones walking around would find their gate unsteady and some of THEM sat down. Then ---oops--- someone headed for the rail and threw up. It had STARTED! We kept on going toward Detroit. The waves became just a little bigger, the roll a bit farther to - Port - slowly - then ---oops--- someone headed for the rail and back to Starboard again; back - and - forth. Another passenger went to the rail, then another. Then - one didn't make it quite that F, older passengers rented staterooms so they could lie down. Then - one didn't make it quite that FAR! Some of the

On leaving the open upper deck and going inside and down the wide, carpeted stairs to the big cabin, there was a sight to behold! People were sitting in chairs that were fastened to the floor, so they could not tip over. They were sitting on the floor, on the broad steps, lying on them, lying on the floor, some smiling weakly, some groaning, many seasick - on the carpet! OH ME, I'm glad I never had to be in the cleanup gang!

But we finally made it to the Detroit river where there were no waves to rock the ship. I'm sure everyone felt better but I never found out.

As summer ended and it came time for the passenger boats to tie up for winter, I was already married to a sailor's life. I was thinking of transferring to ocean-going ships so I told the chief operator (called "Whitie" or "Whitey", later an RCA official) in Cleveland that I was available. He sent me, instead up to the northern part of Lake Michigan, at Frankfort, Michigan, to serve as He sent me, instead, operator on a car ferry operating between several ports up there.

found the ship in dry dock in a nearby town but just about ready to leave. I took over the radio room which had an adjoining bedroom for me. The next day we headed out in the lake for Frankfort, to pick up a cargo of 18 full-size railroad box cars, gondolas, hoppers, refrigerator cars and tank cars loaded with all sorts of merchandise. I had never seen a car ferry before but I was having a ball - new experiences galore.



I found that my job included acting as purser - collecting fares when we had a passenger or two, selling meal tickets, staterooms. And I had to copy the car numbers as the switch engine pushed the cars aboard, then go in the shore office and select the proper waybill for each car. I would take the bills aboard, notify the mate that I was all set, then go to my office and make up a report for each car.

The ship's engineer had already warmed up his engines by working them at slow speed. Soon the "cast off" whistle would blow, heavy rope lines would hit the water and capstan engines would reel them dripping aboard. Then the order "ahead slow" from the pilot house to the engine room and we started moving slowly between two piers and out into the lake.

There were three ships in our group - the Ann Arbor S.S. No. 3, No. 4, and No. 5. I worked on the No. 3 at that time. These ships ran between Frankfort the home port, and Manitowoc, Wisconsin and Menominee, Michigan - all three on the west side of the lake. The other port was Manistique, Michigan - up on the north end of the lake. This trip we were headed for Menominee -

Leaving Frankfort a half hour before noon this day, I had my waybills entered on the report just in time to hear a hand-bell sounding in a distant part of the ship. A crew member, the porter, had started on his round of the ship carry-ing a five-inch bell with its clapper and wooden handle - to announce dinner time. Walking with a limp-and-go-fetch-it step because he was lame, he kept time with the bell. As he drew near my wireless shack I could hear that he was also keeping time by singing.

Many of the crew were genuine deep sea sailors, most of them Norwegians who had worked years before the mast then graduated to steam ships. This porter was of obscure experience. Sometimes a sailor has been a burn, a gambler, deck hand, dock wolloper and so on. Whatever this one was, his bell was always welcome to this young fellow with an activated appetite come rain, shine, snow, sleet, fog, gale or calm.

His song went something like this - and there were many verses that I never did hear all of them:

Oh I went to the animal fair. The birds and beasts were there. The little raccoon by the light of the moon Was combing his auburn hairrrrrrr.

The tune was anything that came to his mind. As he passed my door I went out about fifty feet and turned into the officers dining room.

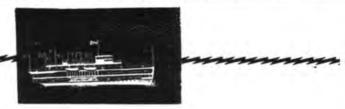
There was a cross-wind this trip, blowing about 25 miles an hour, maybe 22 knots. The chairs around the dining table were all tipped toward the table, instead of resting on their four legs. That was so they would not tip over backward as the ship rolled. The chief engineer and the captain were the exceptions; their places were at the table ends.

Each man coming in pulled his chair back and sat down whether the captain had arrived or not. First come first served was the rule. We were all there today - the chief in charge of our "saw mill engines", (this was an older ship and had horizontal engines instead of the vertical marine type) the first mate, two wheelsmen, the captain and I. Our one passenger decided he wasn't

I got a surprise my first day out on this freight boat; the table cloth was very wet - ALL OVER. I learned that this was to prevent our plates and other dishes from sliding off the table onto the floor, or in our laps, as the ship rolled back and forth. The dishes would not slide easily on the wet cloth. We didn't fill our coffee cups very full either, else the coffee would



Excursion Boat Leaving the Harbor Marinette, Wis.



climb first up one side of the cup, then up the other side, and make the table cloth sort of drizzly. So this meal seemed to be going along reasonably well - we were taking exercise as we ate - balancing slightly against the weaving floor - and then it happened!

Clatter, bangs and crashes all at the same time! I caught my plate just as it was heading for my lap but my cup of coffee sailed past my right elbow and landed against the lower wall back of me. Everyone else at the table had similar sudden-difficulties.

Immediately our tall, lankey, Norwegian captain left his place at the head of the table and, lips tight, stalked out of the dining room, let the outside door slam itself shut with the next roll - and headed for the pilot house.

After the broken dishes were cleared away and the missing food replaced I asked Axel, the first mate sitting next to me, "What happened?" He said, "I guess Olaf, the wheelsman, let us drift off course a bit and we got in a trough. He'll be more careful when the skipper quits talking."

All this time the cook in the adjoining galley was having his troubles with various things sliding around in his department also. But he had more protection than we had at the dining table. His coal-burning range was equipped with several iron brackets. During rough weather he slips what are called "rolling irons" into the brackets. Thus his pots and kettles are confined within metal squares and cannot move very far. Otherwise he might have the contents of a two gallon kettle of hot soup in his pocket, or on the floor, or a peck of mashed potatoes and gallons of coffee, and so on.

After dinner on this trip my work was done so I was at leisure until we reached Menominee. I could wander around the ship, go down in the engine room and play checkers with the chief or the second engineer, get into an inexpensive poker game down in the fo'castle, with the deck hands, or go up in the pilot house and listen to some VERY tall tales by these sea farers. The only one I remember at the moment (that I would dare relate here) concerns living conditions on a sailing ship. This one was prompted by the dishes falling off the table this noon.

Sailor style, the second mate had to exaggerate things. He said that the way they got around dishes falling off the table in sailing ships during rough weather was to give each man at the table just two pieces - a bowl for soup and a coffee cup.

He said the second cook waited on table and would come from the galley to the mess room with a large pail of soup and a Paul Bunyon-size squirt gun. He would set the pail down beside the table, place the end of the squirt gun into the pail of soup, pull up on the piston rod to fill the gun with soup, lift the gun, aim it at an empty soup bowl, and push on the rod to fill the bowl. Then he would go to each place at the table and do likewise.

On the second go-'round someone might change his mind and say, "No, I guess I don't want any more soup." That problem was easily solved; the waiter would lift the squirtgun, dip it into the diner's bowl of soup, PULL on the rod - and the surplus soup was then in the gun, to be squirted back into the soup pail.

When the tale in the pilot house ended, another was ready and waiting to be told - usually ribald, which I didn't appreciate and they knew it - so I got

The rest of the trip I'd walk around the ship, watch the waves, take photos of big splashes, or maybe lie down - only to roll back and forth with each side-swing of the ship. Then we reached the west shore of Lake Michigan, headed into Sturgeon Bay Canal, passed the town of Sturgeon Bay, passed a graveyard of former ships, and came out into Sturgeon Bay in smoother water. A half hour's run across the bay brought us to Menominee which is in the upper peninsula of Michigan not far from Minnesota. In crossing Sturgeon Bay - even at night - I could always tell when we were a few miles from Menominee. It was then a lumber-producing area and the odor of fresh-cut lumber and burning sawdust was always in the air.

After an hour in Menominee we had unloaded, reloaded with 18 cars for Frank-fort and had started back to Frankfort. Such short trips of five or six hours broke up a full night's rest for the captain and I; we were the only two who had to be on duty in each port. The rest of the crew worked four hours fol-lowed by eight hours off duty. So when our varied routes included a trip to Manistique on the north end of the lake, we were glad; it gave us eight hours in the lake in fair weather, and up to fourteen hours against a strong north-

On one Manistique trip I saw the most wonderful sight in the sky I've ever seen. Someone from the pilot house came to my door about two o'clock one morning, woke me and said I should come out on deck and take a look. Half asleep, I put on a bathrobe and slippers and went out.

There was COLOR in the sky - ALL SHADES of colors - in ALL of the sky - from directly overhead clear down to the horizon - in ALL DIRECTIONS. It was like an immense circular tent 20 miles high and 50 miles in diameter with vari-colored stripes running from a spot straight overhead clear down to the circular horizon - it was beautiful.

The northern lights had slipped down from the arctic for a half hour's visit. I have never seen anything like it since that one early morning colorama.

Ships that pass each other and which have had some former acquaintance such as the captains knowing each other - these ships usually salute each other as they pass or meet. I think the salute is one long and one short blast of the whistle. They are huge whistles which could be heard five miles away or more. One such salute seemed strange to me.

We were about half mile from the other ship out in the lake in daylight. Our salute was loud to us, of course. Then the other ship saluted. I could see the steam coming from its whistle. The sound never reached us. Some sort of atmospheric condition acted as a barrier or baffle.

Talking about whistles -- some nights the fog out in the lake was, as they say, "like pea soup". You couldn't see the length of the ship with the moon at full. Fog signals had to be sounded every sixty seconds:

T00000000T

TOOOOOOT

Imagine a big whistle six inches in diameter, three feet tall, with 180 pounds of steam under it sounding -

TOOOOOT

TOOOOOT

while you were trying to sleep - and the whistle only 50 feet away. It both ed me the first two or three foggy nights. After that I simply paid it "no never mind"; it was more like a lullaby than a nuisance. Fifty years later It bothera green bug in a bush outside my window can wake me with its singing at 3:00 A.M. How come?

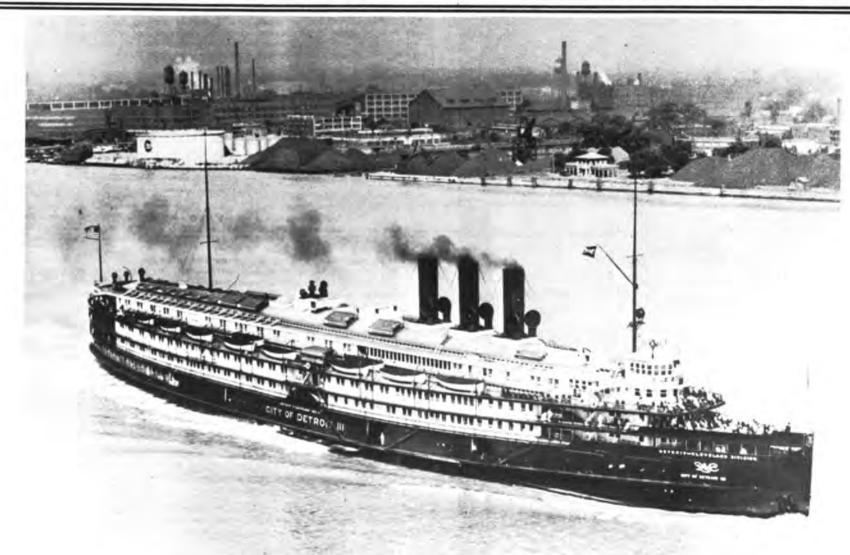
One other strange sailing experience for me was my own seasickness. The first day out in rough weether I felt somewhat queesy in the midsection. Lying down a half hour cured it as long as I kept sailing. I worked on shore for two years then went sailing again and had to take the same 30-minute treatment, and was cured again!

In spite of any landlubber's ideas contrawise - rough weather is what I enjoyed best after the first summer's novelty on the St. Ignace. In calm weather the job became a bit monotonous. There's nothing very interesting to see out there; after you've seen it daily for a month it becomes even less interesting-After a year it approaches boredom, on a freight boat. But in rough weather the variety often picked up.

If we had passengers one or more of them would be sure to become seasick. On one rough trip one lady remained outside the passenger's cabin on the open I suppose she thought the fresh air would help to avoid becoming seasick; the ship was rolling pretty much so I stuck around. She finally had to give up and head for the rail. Right at that time the ship lurched in the same direction. I still think she might have gone overboard if I had not grabbed her. So rough weather does liven things up at times. It does other things, to.

(Continued

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D&C SS. City of Detroit III WEF

Triple-stack deluxe night ship between Detroit and Buffalo in the 20's. Usually making special charter cruises at the end of the season. From the Collection of Richard Cordo [TA-16]

### Grandpa's Steamboat Days

(Continued from Page 9)

### Toot Toot

All crew members have beds, or bunks, depending on how they rate. Their street clothing is hung on hooks on the wall. But the wall is not always stationary; it moves as the ship rolls, of course. The clothing swings back and forth, slowly, rubbing on the wall. Buttons and fabric become thinner because of friction.

Then, on car ferries in rough weather another noisy activity occurs. The rail-road cars on the lower deck which is made of heavy steel, have to be secured so they will not rock back and forth on their built-in springs when the ship rolls. Long screw-jacks are propped against each car and tightened. But an extra heavy roll will tip the cars slightly and let some of the jacks fall to the steel deck with loud bangings. Then the deck hands have to scramble and get the jacks back in place within minutes.

One car ferry must have had this trouble on its last trip. It left Milwaukee on a cold, stormy, winter night and was never heard from again. After having spent a few years working on car ferries, summer and winter, I can imagine what happened, but no one knows for sure. This is my version:

The ship left its dock in Milwaukee that black night and headed out into Lake Michigan for its trip across the lake. After an hour out there on the way to the east shore the wind became a whole gale and the waves so high that the skipper figured he could make no headway and might even be driven back on shore.

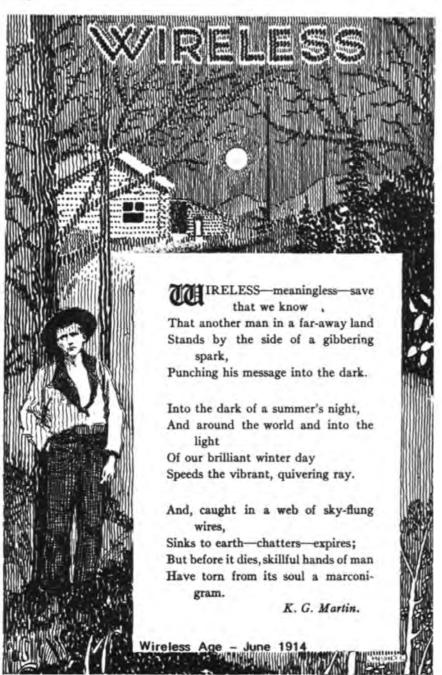
He ordered the deck hands to put extra jacks on all oars and also put chains on some of them. He planned to come about and return to Milwaukee. Whe everything was tightened down he timed the waves from his place up in the pilot house. They were already high but it is usual for three extra large waves to come along in a group - then smaller ones follow until the next group of oversize waves arrive. At the second large wave he gave the wheelsman an order to swing the steering wheel hard over. "Hard aport" he said. The wheel went quickly left full swing and the little bell rang indicating it could go no farther. The ship started turning.

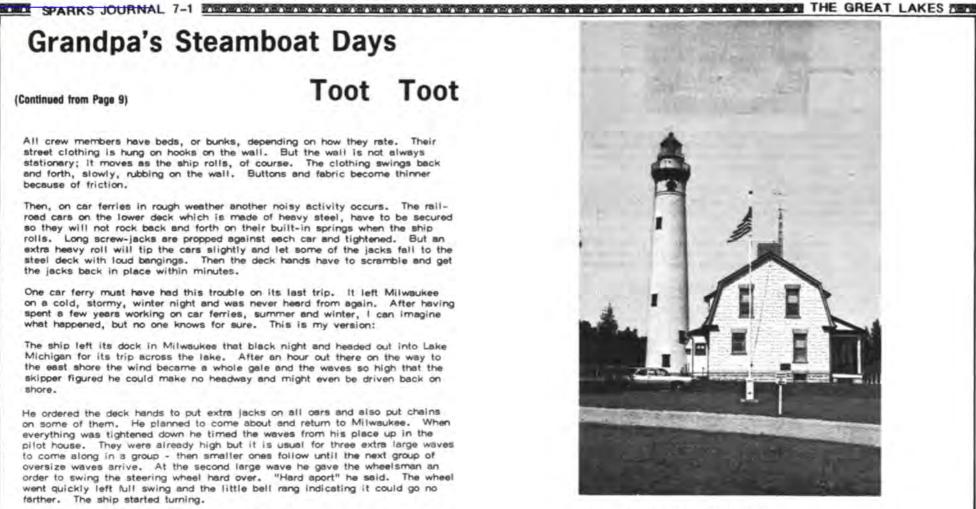
With a full gale pushing against the stern which is the part that does the steering the ship turned more slowly than usual. When the turn was half completed the first of a series of bigger waves hit. This rolled the ship so far over that several chains broke and half of the jacks fell down. The second and third waves followed and most of the railroad cars on the lower deck were piled to one side of the ship. The ship listed heavily to starboard - leaned to the right because there was then too much weight on that side.

There was nothing left now for the captain to do but swing the ship in the direction the waves were traveling and within seconds he had given that order. As the ship started to swing the next oversize wave arrived and rolled the already listing ship so much farther that it turned completely upside down. pilot house was under water. Sleeping men fell out of their beds to what was the ceiling but now the floor. The firemen and engine room crew were thrown about moving machinery, steel beams and hot pipes. Lake water came UP the companionway - a river of it - filling the engine room then on into the boiler room. As the water came high enough it entered the hot boilers - and then - BOOM!

The last I heard, that ship has never been located on the bottom of Lake Michigan....its crew still aboard.

One disaster, or several of them, does not stop the traffic. Ships keep on traveling. Ours did, too...into Frankfort, the home port, and out again, day





#### **NEW PRESQUE ISLE LIGHTHOUSE**

The "new" Presque Isle Lighthouse was built in 1870 about a mile north of the Old Lighthouse when the need became apparent for a coast light instead of the harbor light provided by the Old Lighthouse. The present Presque Isle Lighthouse is among some 40 in Michigan still manned by resident Coast Guard personnel. A narrow road leads to the imposing, white conical tower, 109 feet high, at the north tip of the peninsula. Climb the 140-odd metal steps to the top for, a breath-taking view of the beautiful forest shoreline. Station visiting hours during the summer are 2:00 to 8:00 p.m., Monday thru Friday and 9:00 a.m. to 8:00 p.m. on Saturdays and Sundays. Attendants are on duty.

Sailors are reputed to have a sweetheart in every port. Car ferries are not in port long enough at one time to make such projects easy. But that made no difference to a young fellow in the communication business; girls are in the communication business, too! So I'd crank up the 1913 telephone ringer and communicate with telephone central girls. Being young I didn't know the danger... Mama never told me!

I cranked up the phone at Frankfort so often that one of the central girls there could recognize my ring, just as you can recognize someone's handwriting. I knew the technical details of electrical gadgets including telephones and I knew that just one quarter of a turn of the handle was sufficient to put the signal on central's switchboard. SO THAT was my handwriting via telephone.

That delightful (or scheming) central girl would always take my call whenever she was on duty. A week later I started making personal appearances at her switchboard. After several personal visits at her office I wanted to see the inside of the complicated switchboard which had an inspection door at the rear. All of the scores of relays and jacks are back there.

My communications girlfriend obliged by showing me the inside workings of the switchboard. To repay the favor 1 just naturally kissed her while still back of the switchboard, of course.

That phone office was on the north side of Frankfort Bay while the boat docks were on the south side. A little launch would take crew members across the When the bay froze over early in the winter, the launch could not operate and that delayed cupid a bit. Later on, the ice became thick and we WALKED over.

One winter day we arrived in Frankfort expecting to walk across the bay, but some other boat had maneuvered in the bay and had broken the ice into large cakes for a long distance. I didn't know what to do but the rest of the crew did. The ice was in big cakes 6 to 8 feet across. Some of the crew started out and I watched them from shore. Then more of the crew came to walk across and told me to follow them. SO I DID! It still makes me feel creepy!

The cakes were about a foot thick and large enough to hold two or three men. The trouble was, when you'd get near the edge of the cake it would start to sink at that edge so the traveler had to hop onto the adjoining cake and hustle toward its center. I followed the gang across the bay and back again. I believe I'd remain a bachelor before I'd do that again.

This courting business interferred with the ship one day. I had checked the car numbers but failed to go in the shore office and pick up the waybill for each car. The ship was five miles out in the lake when I discovered the failure. These bills simply had to go with their cars and it was up to me to tell the skipper (gulp) that I had made a boo boo - SO I DID.

He ordered the ship turned back to Frankfort to get the waybills - all 28 of us and 18 railroad cars, tons of coal and hundreds of tons of steel ship - and everybody aboard knew the reason!

The skipper said, "Shy don't you marry the girl?" SO I DID!

Life on the car ferries varies with the weather and also with the change of seasons. I found considerable interest in the winter season out on the lake. Car ferries operate the year around. They do not lay up in November as other

Some winters are so cold around the northern part of Lake Michigan that the lake freezes over except for some sections in deeper water. ice becomes so thick you'd think no boat could get through it. I have seen the ship I was on break its way through ice four feet thick, and windrows that were possibly 12 feet thick but not very wide. A windrow is caused by a large field of floating ice moving before the wind meeting a stationary field. When they meet the colliding edges are under terrific pressure and they crush each other into refrigerator-size chunks during the three or four minutes it takes the stationary field to stop the moving field. Meanwhile the crumbling ice piles up into the air and also down into the water, then freezes solid. It makes a difficult barrier to break through.

(Continued Next Page)

Car ferries have reinforced steel bows that are sloped so as to aid the ship in climbing partly up on the ice when it meets an ice field and is traveling about 15 miles an hour. The great weight of the ship breaks the ice down into the the water. This often stops the ship then the engines are reversed, the ship backs away several lengths and makes another run against the ice to break a channel still further.

This way, with three ships making repeated trips every day or two on the same route there would be long channels of heavy ice in huge chunks but frozen together lightly from the day before.

One time we were plowing along one of these channels of chunk ice, making fairly good speed, when the wind shifted. A large ice-field on one side of the channel started moving under the wind, toward the field on the other side of the channel. The channel was squeezed shut. We stopped - squeezed stuck - couldn't move.

The wind continued blowing for nearly three days - temperature below zero. By the time the wind let up we were frozen in solid. We stayed stuck for nine days, 20 miles from shore.

Now nine days way out in the lake with no TV or radio programs (in 1913), nothing to do, nothing to see but ice and ship, smoking tobacco becoming scarce, food variety running out, enough coal for only three days of traveling; would they have to shut down the heating boiler and drain it so the pipes wouldn't freeze; no electric blankets then (and on the eighth day) "Let's look through those waybills and see if there is canned food of some kind in some of those cars - that refrigerator car might be loaded with fresh beef" and there might be canned milk in one of the box cars"...nine days - should we just endure the monotony or is there some worrying that needs doing? "Let's try the wireless, maybe the 'five' is getting closer?"

We were not much worried about our ship getting squeezed by ice pressure so great that its sides would collapse although I heard sailor-talk about that dis-aster having happened to wood sailing ships. We went walking on the ice out there - or rather climbing over miniature icebergs. Some of the crew cut holes in the ice between the larger chunks and tried fishing - with no luck.

Anyhow, on the ninth day a sister-ship, the Number 5, informed us that they could see our smoke and they expected to have us in sight before dark - and they did. The five broke a channel close to us and our propellers tore us free from that icy grip. That's the longest time I sailed without balancing against an ever tilting deck.

Steering a ship becomes tiresome to wheelsmen at times, so in calm weather I was sometimes asked if I'd like to "wheel" awhile when one of them wanted to go below or somewhere. Then I would do a turn at the wheel and try to remember the course I was given, "west by south, three quarters south".

When I was wheeling in the winter time I sometimes tried "aiming" the ship.

When there were a few scattered small fields of thin ice in the otherwise open lake, I like to aim for some certain spot of ice way up ahead that was almost on the correct course; aim for it and see if I could hit it with our several hundred tons of steel. I could tell when I hit it because the ice made a noise on the hull.

Well this portion of Grandpa's Steamboating Experiences is about ready to dock so I'd better bring you in out of the cold - back to summer.

On one summer trip I heard a passenger ask the skipper about a peculiar spot on the water as we were crossing Lake Michigan. The lake was flat this day-just a slight breeze that made tiny ripples on the water. But there was one spot of water that was glassy smoothe - no ripples. The skipper, without a change of expression because of many past experiences said, "That's where they cut ice last winter."

Sailors - and their tall tales!

It's time to eat again, so I've got a tale to tell my telephone gal from Frankfort...the charming lady with the now-white hair!



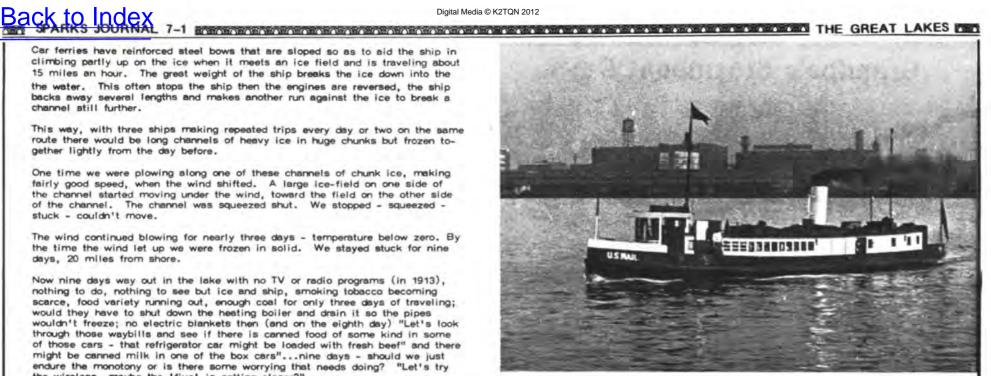
#### WHILE ON THE D&C LINE

The St. Ignace was an old ship. A "wireless" operators vacancy came up on the newer and larger "S.S. Western States". I applied for it and got it. When payday came around I got my monthly check and two days later another check for the same amount. One check was from the Marconi Company and the other from the D&C Line. The extra check came in handy even though the two totaled less than \$100 for the month. But the two accounting departments must have learned that I wasn't saving my money because the next month I didn't get ANY check!

Wireless was so new back in 1913 that the ship builders had not heard of this invention when they built those side-paddle ships: they did not design them to include sleeping quarters for a wireless operator so I had to sleep on "ground floor" down in the hold about the water line. There was a porthole in my bunking room for ventilation. One night I'd sleep on the Detroit River while the ship was tied up in Detroit. The next night it would be in Cleveland on the Cuyahoga River. That porthole let the air in alright but it was river-air. Right over the porthole there was an extension of the ship sticking out about six feet. It was called the "bustle". The bustle was to provide room for the paddle wheel on my bunkroom side of the ship. The cute little bubbles coming up from the sludge in the bottom of the river carried a "Denmark aroma" that hit the bustle and came right through the porthole. After getting up with a headache two mornings in succession, I solved the problem by rolling up my thin mattress and taking it up to my fenced-off wireless cage. I slept there on the floor.

Someone learned my secret and reported me. Then I sneaked the mattress into one of the two hundred empty staterooms each night and slept there on the floor. At least the air was less perfumed.

At one time while on the D&C line I bunked with a fellow who had charge of the news stand on the ship. He sold magazines, dime novels, peanuts, and the early days packaged candies. If you're old enough you may remember those thin "boston wafers" of semi-hard candy. The wafers were a bit larger



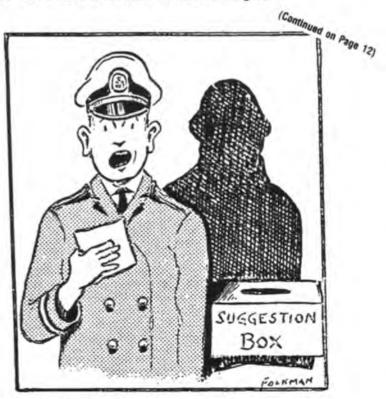
A welcome sight as the U.S. Mail Boat comes alongside as we pass Detroit enroute. This pictures was taken in 1933 by Sowp Member Stanley F. Pachner 807-V

than a 25 cent piece but half that thick. They were of assorted colors includ-ing licorice, peppermint, anice, wintergreen and so on...pink, white, dark grey and wrapped in not plastic (plastic had not been invented yet); the wrapper was and wrapped in not plastic (plastic had not been invented yet); the wrapper was some kind of thin paper you could see through fairly well and see the varied colors. Anyhow, this young fellow, who was earning money for his next year in college gave me a short course in business economics. He found a place to buy "United News Co." labels to stick on his merchandise and also a place to buy the merchandise. So he would put in his own stock of goods and sell some of his own stock on each trip, to increase his earnings. I imagine he's driving a Cadillac now. I prefer my Chevy wagon.

Another fellow on the same ship had a system for increasing his earnings, too. On Saturday nights I had to work on our return excursion-trip from Detroit to Cleveland so my bunk was empty all that night. room during the night to get something and found the door locked on the inside! I rounded up the night-watch to see if he could find out what was He couldn't get in either but he seemed to know who to consult and in a few minutes he came back with the news that there were no more staterooms available and the third mate had rented my room to two women. I was locked out. Economics!

Steamboat men, unlike "canvass sailors" do not have to develop a great deal of physical strength; steam does most of the work. But I sailed with one fellow who seemed to have a surplus of muscle. He was first mate Chick Hanson, a wiry Irishman with a Norwegian name who later became Captain Chick. On trips into Manitowoc when we had cars for the Soo Line dock we'd have to go up river and through a turn-bridge. Four long blasts of the whistle would sound about five minutes before we went through the bridge. That gave the bridgeman time to stop the traffic and open the bridge for us to go through at about two miles an hour. Chick lived in Manitowoc and could seldom get home so as we went through the bridge slowly he would have a stout rope over the size of the ship and at just the right time he would slide down that rope, swing out two feet from the side of the ship, swing over the handrail of the bridge and drop as accurately and as easily as a cat onto the sidewalk of the bridge. Brrrr!

Bread may be the "staff of life" although someone else said there are exceptions to all rules. Among the many unusual things I learned while steamboating is that it pays to keep alert - keep your eyes open. If you see something you don't understand, ask questions. Not long after I started working on car ferries I saw one of the officers take a slice of bread off the bread plate and as he brought it toward himself he held it up as if to look at it. It was a casual and quick movement. I didn't particularly notice anything unusual until I saw him do it again the next day. The third day I was curious - I watched him closely. He was looking "through" the slice of bread. I asked him what he did that for. His reply puzzled me, "I'm looking to see if I get a prize," When I pressed for more definite information he said. "I want to prize." When I pressed for more definite information he said, "I want to see if I get a whole cockroach or just a half!" After that I looked through MY slices too. And I found it advisable to continue doing so!



"All right, who's the wise guy recommending we shut down the radio room and replace it with carrier pigeons "

### Grandpa's Steamboat Days



Mail Boat, SS Missouri [ WFX ] caught in ice pack on the Great Lakes. Photo by Member Ray T. Warner - 213-SGP.

But the rest of our food was very good. The cook couldn't help it if the bugs got into the bread dough when he wasn't looking. He had too many things to watch and the cockroaches were too plentiful. He made the best corned beef I've ever tasted. Into a pickle keg half full of salt brine he placed chunks of "steamboat grade" beef and, of course, covered it! I guess it took two weeks to cure, or "corn". Those steamboat cooks knew their trade - they even had to be butchers as well; our beef came aboard in "quarters" to be cut up on a big meat block in the galley. But cooks sleep at night white wireless cooks. big meat block in the galley. But cooks sleep at night while wireless operators have to be up anytime the ship arrives in port. If I happened to be hungry while the cook was asleep, I'd go in the galley and see what I could find. Eventually I located an excellent drink to go with a piece of cake or whatever was on tap at midnight or maybe 3:00 AM.

Our supply of milk came in a ten-gation milk can...real fresh Jersey milk.

And it wasn't homogonized either. Homogonization had not been invented yet. SAY - a LOT of things had not been invented back there!

So I discovered that by midnight or after, that ten gallon can of milk had a gallon of cream on top! I'd go in the walk-in refrigerator which was cooled by real cakes of ice because electric refrigeration had not been inven --- (Oh, I said that before) --- I'd dip out a big glass of cream and have that with whatever I was going to eat. Would you? I thought it was delicious!

Powerful engines on a freight boat cause a slight viabration throughout the whole ship. It's not annoying - it's just there and you never think of it.

We were going along out in the lake on a calm day, from Frankfort to Manito-woc, in daylight. I was sitting in my radio shack reading. The ship was not rolling, just plowing along as usual when something seemed strange all of a sudden. It's always quiet out there on a calm day but suddenly the quietness became "extra loud". I had never experienced this before. I had just started to wonder what was wrong then I realized that our engines had stopped! I looked out at the water and saw we were coasting, slowing down...and finally in about two minutes we came to a stop. It takes that long for the hundreds of tons of weight to coast itself to a stop.

One of the crew walked past my door and I asked him what we were stopped for. He said, "Something on one of the engines wasn't working just right and the chief wants to see what he can do about it." This was a twin-screw

We were stopped out there for about thirty minutes. Gosh, it was quiet. No passengers. Most of the crew either sleeping, reading, or playing cards somewhere down below. No activity topside whatever. I walked around, stopped here and there, looked down into the quiet water, heard a wrench drop on the steel floor in the engine room fifty feet under me, saw a small streak of smoke off in the horizon from some other ship, issue a half dozen see gull's coasting around lazily overhead, heard them talking to each other up there otherwise loud-quietness. It was strange.

November 13, 1913 was disaster day on the Great Lakes but we on the Ann Arbor No. 3 didn't know it until the next day. There was never a day like

it before nor since. A tremendous wind storm developed all over the Great ake region, hundreds of miles in area fierce winds. In one day 13 ships were wrecked with many lives lost.

We left Frankfort that morning against a stiff northwest wind that was rising. Weather reports then were not as complete as now; we did not know the severety of the increasing storm. The waves were fairly high as we left Frankfort so we headed into them, to the right, to starboard, even though our course, in calm weather would have been slightly to the left or port.

We did not make good speed on account of the strong head wind. In an hour we had gone about 8 miles instead of 15. The next hour we made only 4 nd were still in sight of land - the wind had increased in force waves were now huge ones. The ship was not rolling it was bucking like a balky horse trying to flip its rider over its head. The ship would rise up near the top of one wave, then its bow out of water would slam down onto the fol-lowing wave with a loud "SMACK". If that wind kept getting stronger our engines could not keep us going forward and we might be driven back on shore and wrecked. As it was, the high waves took the two eight-foot high propel-lers OUT OF THE WATER each time we went over a wave. When the propel-lers had nothing to bite into but wind the engines quickly speeded up and big steam engines of that "saw mill" type can tear themselves to pieces in a few seconds if they rev up too high. The chief engineer himself held the throttle continuously. Everytime we went over a wave that let the engines speed up he had to shut off most of the steam for a few seconds, then open the throttle as the propellers hit solid water again. Open and close, open and close the throttle for half an hour.

By that time the captain saw that the storm was dangerous. He knew we could not make headway to get over toward the west part of the lake where the waves would not be as big, driven by the northwest wind, and he could not be certain that we could make it far enough north to find shelter behind North Manitou Island. But he COULD take us back to Frankfort with two IF'S: if he could turn us around without turning us over, and if he got us turned around and back near Frankfort; the second "IF" was could we steer exactly in between the two outer piers with huge waves interferring? With waves so large there was the possibility that the ship might touch bottom when its bow or stern was between two waves just as we were entering the piers. would swing the ship off course and we could be wrecked against the pierheads. Another IF showed itself to me as we approached the piers. We got turned around safely, after putting extra jacks on all of the railroad cars in the lower deck and started making extra speed toward Frankfort, with the aid of waves and high wind behind us.

Our skipper had to figure on the wind pushing us side ways and also on the tide-effect of the wind driven water as we aimed for the not-very wide channel between the piers. The way the boat was pitching on the waves told me that a feat of expert seamanship was coming up. I could go up to the pilot house and watch the operation but I figured I could get a better idea of the ticklish problem by going in the opposite direction; I went clear back to the stern of the ship as we aimed for the piers. From there the job of ever getting in be-tween those piers looked impossible.

As I looked toward the bow and land, the ship was floated on a big wave to the right of the piers (I could see the piers) then the next wave would turn the ship to the left and I couldn't see the piers. It would keep swinging left and I could see them again. Right of the piers then left of the piers... how could ANYONE ever hit exactly - like a cork on the high seas? I still marvel at, and appreciate, Captain Charley Frederickson's experience and abi-

The swinging, right then left, kept up as we drew nearer to those piers with the now-rough channel between them, closer...closer, left, right, closer, and then right beside me the small steel tower with its blinking light went past me on the left of me - and one on the right of me. We were IN!



Author of "Grandpa's Steamboating Days" became a 'Silent Key' on January 17 1980. Member Number 2700-Senior SGP, Ross retired to Orlando, Florida. He was an accomplished Pipe Organist. He also authored a number of stories which were accepted by prominent publishers.

## he Fast "Break-

DOOD Reported by RALPH C FOLKMAN DOOD

was summoned ashore on May 17, 1925, from my ship assignment to take over duties as night operator at WTK, Cleveland (Ohio) coastal station, located on the tenth floor of the Cleveland Hotel, occupying what had been a deluxe suite.

Once alone with this outfit, I proceeded to take inventory of the big transmitter, its controls and gadgets so much more imposing than my shipboard jobs. I secretly thrilled at being in charge of the place through which I had funneled my message traffic from freighters and passenger vessels for the past three.

Finally I settled myself in the big swivel chair in front of the Marconi receiver, signing "on watch" at the top of the log sheet. Traffic on the Lakes was light, but excellent signals broke through from the East Coast. Almost instantly I froze-yes, sure enough--once, twice, three times a raspy spark was pounding out SOS.

Waiting a few seconds to assimilate the situation, I mechanically grabbed for the main switch on the transmitter. Piping down all ships in my area, I pounded out "QRT - QRX for DISTRESS" and felt a tingling up and down my spine as this warning was repeated by other coastal stations in the Lake region and along the east coast.

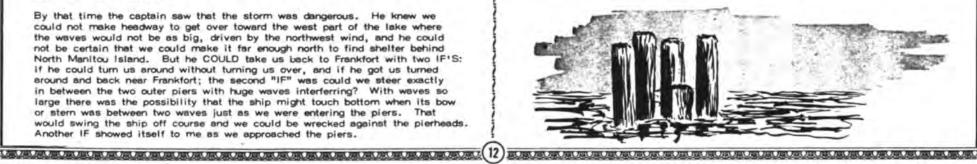
The vessel in trouble proved to be a foreign freighter off the Virginia coast. I maintained a complete log of all rescue activity, and had to pounce on several Lake vessels whose operators were curious as to what was going on.

About two hours later, an "ALL CLEAR" eminated from the Coast Guard station on the east coast that was handling the emergency. This "resume traffic" information found its way to my fist and this brand new coastal station operator officially opened business on the Great Lakes.

Then I shakily settled back to light a cigar, beginning to feel the reaction of this new experience, when the Chief Operator walked in to determine how this novice was doing on his first watch.

Scanning the log, the boss exclained that he was being kidded and demanded to see the REAL log. "That's it," I blurted out. "Althought I was merely sitting on the sidelines, acting as a traffic cop, " I explained, "it was quite a thrill to participate in a distress."

"WOW," the chief blasted out. "Less than an hour on his first coast-station watch and he hits the jackpot."



### My Six Years on the Great Lakes

#### LLOYD L. ARNOLD

July 21, 1925, I boarded the William C. Atwater, an ore carrier of the Wilson Transit Line. The Atwater was a new ship, made its maiden trip in May, 1925. 605 feet in length. it carried coal from lower ports to Duluth and iron ore to Conneaut and Ashtabula, Ohio, and occasionally to Chicago.

The equipment was an RCA 500 watt quenched spark transmitter. Receiver type 106 or 106A. The quenched gaps were so warped you would almost pass out from the ozone from them. So I got one of the engineers to resurface them and I got them back together and after working a few trips I had a nice clean signal.

One evening I was off Keweenaw Point and I heard Cleveland calling, so I gave him a call and WPA at Port Arthur, Texas, called me and asked my position and I told him. WPA came back and asked me where that was and I told him, "In Lake Superior." He asked me if I would QSY to 700 meters and handle my traffic as I was interfering with traffic down there. That was considered good distance in those days. WPA reported to RCA Cleveland office and they wanted to know what I did to the transmitter.

In 1925 an RCA direction finder was installed on the Atwater which was one of the few that had direction finders. Also that year a fathom meter was installed on the Atwater, the first one of the Great Lakes. This was operated by an electro magnetic hammer that hit the bottom of the ship and the echo would return and register in the pilot house the depth of the lake.

In 1927 intercity radio equipment was installed. A 1 KW Navy spark transmitter, a Kennedy receiver. I made my own amplifier, two stages of RF. Det. and push-pull amplifier. This was made so I could attach it to any receiver as most equipment on board ships had only a detector tube.

Our last trip down from Fort Williams Dec. 8, 1927, we had winds at 45 miles per hour and the temperature was below zero and the waves were running quite high.

We arrived at the Soo locks December 10 with six inches of ice all over the ship, and we were told to dock at lower pier as there were ten or twelve ships stuck in St. Mary's River. We were there ten days before ice breakers could get a channel cleared. During this time at the Soo I would get grocery orders from ships down river and have them filled and local people would go by sleigh to the ships as they were running out of food. There was a fleet of 60 ships there at the Soo before we were able to leave. The Atwater left on December 20 and arrived at Lake Erie port December 23.

I was back on the Atwater for the 1928 season all routine. In 1929 I took over the Duluth Station WME on April 15 to December 15, 1929. Worked for Intercity Radio 7 a.m. to 7 p.m. seven days a week. Mr. Ed Glause had held this job for a couple years before me. The transmitter was a 5KW spark (don't remember the name of it) and we had a shortwave receiver, bread board style, which we worked Cleveland and Buffalo and Roger City. At that time we were running competition to Western Union to some of the bigger cities. This station was located in the McDougal terminal building. That fall RCA installed a land station on the hill in Duluth. 1930 I went back on the Atwater for the season. 1931 the Atwater did not sail or at that time they were changing to radio telephone so they would not need a radio operator.

1931 I sailed on the SS Puritan, a passenger ship out of Chicago 1932 I was on the MY/Dr Brinkley out of Chicago for about a six weeks cruise on the lake. The equipment was a shortwave trans-

The only saltwater experience I had was the winter of 1926-27. I sailed out of New York on SS Sulanerico to the west coast and back. Took general cargo around and brought back lumber from Seattle. On our return trip off Cape Hatteras we hit a bad storm with winds up to 60 miles an hour. Our progress was 36 miles in 36 hours. The lashing broke on deck and lumber scattered all over the front deck. Life boats were hanging over the side and we had a 17 degree list and lumber had to be cut off that was sticking over the side so we could get through the bridges as we were going to New Jersey. This was my last saltwater trip.

Feministically Speaking

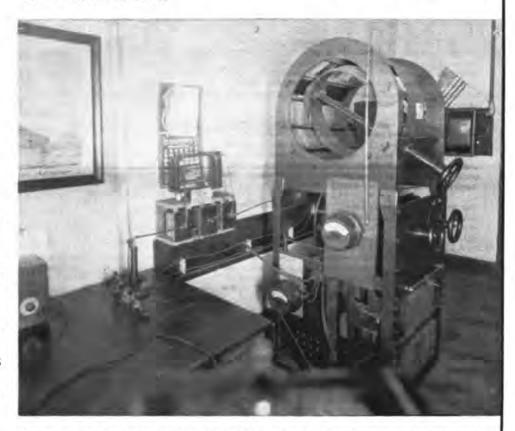
Cape of Good Hope-Sweet sixteen.

Cape Flattery—Twenty. Cape Lookout—Twenty-five.

Cape Fear-Thirty. Cape Farewell-Forty. Station "WME" Duluth

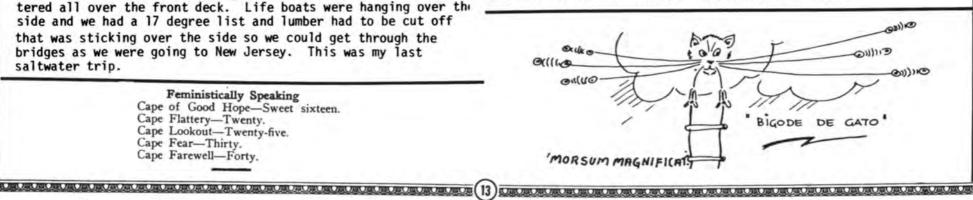


The 'Intercity Radio Telegraph Company Station, Duluth, Minn [ WME ] taken in 1928. Society member Roy Closs - 801-SG1 who now lives in Frankfort, Michigan is the operator in the picture. The station was open to "PG" traffic. The picture was taken by Mr. L.P. Gallagher, a commercial photographer of Duluth. Roy was operator at the station for 8 months in 1928.



This is a picture of the "SIMON" 15 KW quenched gap spark transmitter at the WME, Duluth, Minn. Station circa 1928. Roy Closs furnished the picture. It is understood that the transmitter of unusual design had plenty of power. It was built for the U.S. Post Office Department according to Mr. Close. This picture was also taken by commercial photographer L.P. Gallagher. The transmitter was intended for use in point to point service by the Post Office which leads one to wonder if it was the original Air Mail Service although Duluth was far off any of the routes on which original Air Mail stations were established. Perhaps some of our members may be able to furnish the answer ? Roy also wonders if any of the former operators of the station are still around ?

Roy served on a number of Lakers including the DD Thos. Birtt/KFNU in 1924, SS Angeline, SS Negaunee and the SS Favorite. He also served at Station WCL, Columbus Ohio (1929) but returned to the lakes in 1945 He was relief engineer on Car Ferries until 1953 ( Stratis of Macikinac (Michigan State Ferry weightmaster from 1957 to 59 and last as Chief Engineer on the M/V Viking. His ham call is W8CSO.





ST. JOSEPH BENTON HARBOR AND RETURN

acursion Servit

st Trip June 22nd ast Trip Sept. 2nd

THE LAND OF FRUIT AND FLOWERS MICHIGAN'S POPULAR EXCURSION TRIP

> S150 WEEK Sundays and Holidays \$2.00

T MINL PH-HENTON HARBOR EXCURSION SCHEDULE  EXCURSION SERVICE

The Bigger the Party

More Fun For All

Candy.

To SOUTH HAVEN

THE WHITE FLYER S. S. CITY OF BENTON HARBOR TO THE HEART OF WEST MICHIGAN RESORT DISTRICT

GOODRICH STEAMSHIPS ARE AS COMFORTABLE AS OCEAN LINERS EXCELLENT LUNCH ROOMS - CANDY STANDS - DANCING FREE - MUSIC - COMFORTABLE DECK CHAIRS

North Shore Pavilion S175 WELK New Cafeteria and Casino — Show S175 DAYS Promenade Decks Places of South Haven — Bathing Sundays and Holldays \$2.25 On The Boat

SOUTH HAVEN EXCURSION SCHEDULE

Lv. Chicago— Nery Pier—Delly (Ez. Sat.) 9-65 A. M. Lv. South Haven Delly (Ez. Sat.) 5-98 P. M. Ar. South Haven 18.00 P. M. 7:00 P. M. Lv. South Haven Set. only 7:00 P. M. Ar. Chicago via Holland SEE PAGES 5-4 FOR OTHER SOUTH HAVEN-CHICAGO SERVICE SCHEDULES

ALL SCHEDULES DAYLIGHT SAVING TIME.

To Michigan City AND RETURN

THE ATLANTIC CITY OF THE WEST \$100 WEEK Ex. Sat.

Saturdays \$1.25 Sundays and Holidays \$1.75

Take The Children -A Trip Just Long Enough-

MICHIGAN CITY EXCURSION SCHEDULE Lr. Girape Novy Per Duly (es. Sat.) 10:00 A. H. Ar. Mich. City 1:00 P. M.

Strursion Service

st Trip June 22nd

Last Trip Sept. 2nd

is Chicago(Sut. only) 2:00 P. M. Lv. Mich. City(Sut. only) 7 P.M. Ar, Mich. City ... 5:00 P. M. & Chicago (New Par.) 10:00 P. M.

CHICAGO DOCKS, NAVY PIER

### EARLY DAYS ON THE LAKES

-- Charles M. "Doc" Dibbell 367-SGP - W3HTS

During the summer of 1909 a high school buddle and I while walking up the street picked up a brilliantly colored red and yellow magazine bearing streaks of lightning across the cover. The word wireless and the name of GREENBACH was very much in evidence. We were very much impressed and proceeded to investigate further. It led to the discovery that the United Wireless Telegraph Co. had a station on the hill above Duluth. We visited the station and hung eround there all that fall.

The second shift operator's name was Jimmy Grote and as I remember he had a cork leg. We soon picked up the Morse Code from Jimmy and after we became efficient enough to operate the station we were left in charge while Jimmy waded through the snow to visit a girl friend in the neighborhood. Th was my initiation to wireless.

The first trick operator was O.R. Redfern and as I remember a Mr. Moe was district manager for United Wireless Telegraph Co. at that time. During the spring of 1910 I relieved the operators frequently and in April I was asked if my parents would permit me to leave school early and relieve the operator, Tom Joynes, at Grand Marais, Minnesota. I finally per-suaded my parents that, because of my standing in school, I could make up the time after school in the So I got the job.

Navigation on Lake Superior didn't open until late in April so I had to ride the four horse coach from Duluth to Grand Marais (110 miles) over a corduroy logging road to get to my new job. It took two days and one night, and snyone who has ever ridden over a corduroy road knows what a trip that was.

Tom met me at the bus (coach) and checked me out for about two weeks after which he took the first boat of the season back to Duluth.

The station was a three room frame building consist-ing of operating room in which there was a large closet, the 'Chamber of Horrors,' containing a five KW transformer on which was mounted a spark gap, and a rack of Leyden Jars (condensers). The inch and a half spark gap produced the noise which labeled the room as Chamber of Horrors.

The middle room of the building was the bedroom. It might be of interest to note here that, as there was only one operator at the station, I wore the Brandies phones at night and on many occasions woke up at the sound of GM which was the station call.

The third room was the engine room in which there was a single cylinder engine with two four foot flywheels driven by gasoline and employing a make and break ignition system (no spark plug) which gave me no end of trouble. The 10 KW alternator was belt driven and due to the fact that the speed of the engine varied considerably the lights in the station flickered plenty. (Incidentally mine was one of two buildings having electric lights. The other one was the Trading Post.) The exhaust of the engine discharged through a pipe and muffler which was buried in loose stones at the end of the building. When the breeze was from the right direction the fumes came up through the floor boards of the operating room and it was these furnes which nearly 'done me in.'

After operating for several hours during a rainy day with the doors closed, I was discovered slumped over the operating table by the town marshall who dropped by often to chew the rsg. I recovered after two days in bed. No one knew then that it was carbon monoxide which caused the trouble. The one doctor in the county, Dr. Hicks, had graduated from a two year college about fifteen years too soon to learn that carbon monoxide could kill.

NOTE: Member Charles M. "Doc" Dibbell - SOW 367-S-SGP became a Silent Key in the Spring of 1982. Wireless 1909 to 1918.



CHICAGO I OCKS, NAVY PIER

GOLF LINKS

Drive Thru the Fruit

Belt — THREE HOURS OR MORE EVERY DAY FOR RECREATION

The antenna was a four wire, phosphor bronze affair stretched between two 60 foot poles, center fed.

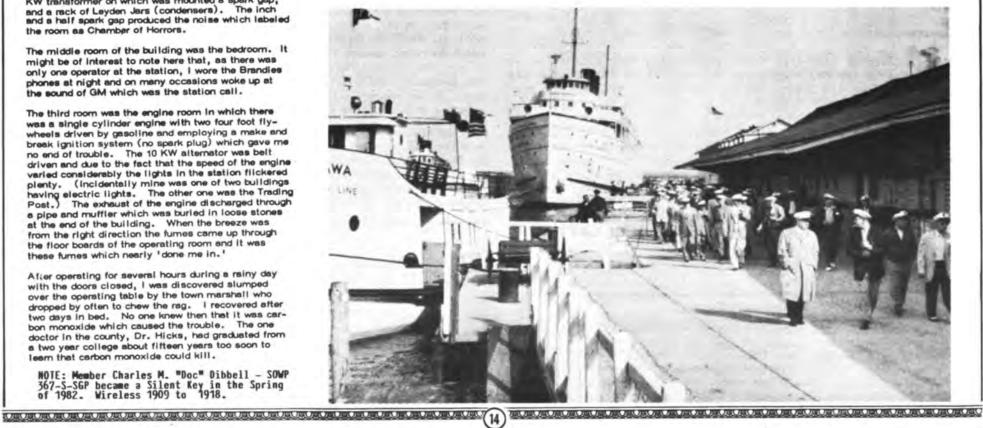
About midway under the poles was the 'Chick Sales' house and during a violent thunder storm the antenna was struck by lightning and the bolt also demolished the outside tollet. For some time that area was off limits for the townsfolks because of the aroma.

I might add that during that summer I had my first romance, with the sheriff's daughter, even though I was only fourteen years old.

I believe that I was the youngest Commercial operator in 1910. Would be interested to know.



THE GREAT LAKES, though they're not populated with passenger ships to the extent they used to be, still offer relaxing cruises aboard such vessels as Canadian Pacific's Keewatin (left) and Assiniboia, which make summer sailings between Port McNicoll and Fort William, and the Georgian Bay Line's North American (below) and South American. The North operates on round voyages from Chicago to Buffalo, and the South from Buffalo to Duluth. Shorter trips can be made on such long-hop ferries as the Milwankee Clipper and car ferries run by the Grand Trunk, Chesapeake & Ohio and Ann Arbor railroads. Throughout North America many excursion boats are still operating.



### THE GREAT LAKES

### A STEP BACK IN TIME

A Savor of Life "The Way It Was"

BY RALPH C. FOLKMAN

ccording to an OLD LOG BOOK that I have maintained throughout the years, I hear my first "wireless" signals on outlined in 1916. On the memorable night I put the finishing touches on a hedenring for an antenna, tuned in NA out the years, I hear my first "wireless" signals on Christmas Eve homemade receiver and using a bedspring for an antenna, tuned in NAA at Arlington, Virginia sending time signals and press dispatches. For the remainder of that winter I heard dozens of ships at sea, and in the spring of 1917 listened in on ships of the Great Lakes as they tuned up their "spark" transmitters for the coming season on the Lakes.

Attending East Technical High School at the time, I naturally became an ardent member of the school's wireless club. One day, while listening on the marine frequency in the club's shack, I happened onto WCS, the SS Alpena handling message traffic with VBE, Sarnia, Ontario A close friend of mine was operator on that vessel and this incident inspired me to become a ship operator. Subsequently, I studied hard, acquired the necessary commercial license and was assigned to the SS Peter Reiss (freighter). I felt a tinge of importance as I scrambled up her ladder, having been told that my arrival would trigger their sailing as they couldn't depart without a wireless operator. From that day on, I was called "SPARKS".

As we left Buffalo bound for Green Bay, Wisconsin, I got my first look at a shipboard installation, awe-inspiring to this novice, with its switches, push buttons and gadgets that I'd have to become acquainted with... For some days we plowed northward, with me practicing message-handling procedures -- all this, of course, with the vessel's antenna disconnected so that my synthetic messages would not actually get on the air for other stations to hear.

I had been warned to "count to 'five' after starting the transmitter, to permit the rotary spark gap to reach full speed before I pressed the "You'll be sorry" they said if that gap is running too slow.lt'll do damage and probably blow the Leyden Jar condensers,". I had the procedure down perfect, that is, until that first actual message which was directed to my ship. Then, overly anxious to answer the calling station, I forgot to count to five and... you guessed it, the shack was rent with an earsplitting crash and filled with blue smoke! I was off the air until repairs and replacements could be made. The delay in finally handling that first message took the wind out of my sails and put a dent in my pride as the Peter Reiss operator.



#### A Great Lakes Pioneer. . .

You are looking at a picture of a very dedicated man. His name is Ralph C. Folkman whose stories of the early days on the Great Lakes tells you about his early life and experiences. Later he spent many years developing radio in the Cleveland Police Department where he remained until retirement. Ralph has held many offices in the early days of the Society such as Area Director and later on our Board of Governors. He also was our outstanding cartoonist and has assisted with many drawings his consumate skill and generous pen furnished the Society. It was stalwart members such as "FO" who rate much of the credit for the growth and standing of the Society of Wireless Pioneers.

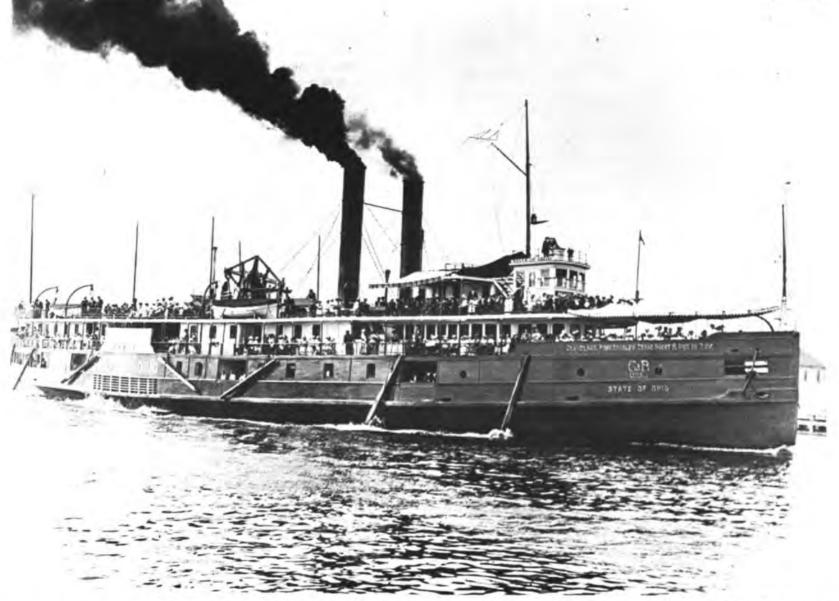
Later that season I found myself aboard the SS City of Erie, passenger ship plying between Cleveland and Buffalo. This was a far cry from the freighter job and necessitated a 'natty' blue uniform instead of overalls. Experiences too numberous to relate happend on the Erie. The SS city of Buffalo ran exactly opporite to us, passing our ship each morning at two A.M., at which moment we two operators would hit the key in friendly salute.

I had noticed that when the Buffalo's operator pressed his wireless key a section of lights on their freight deck brightened considerabily. I told the operator about this strange phenomenon and he said he would check it. Later, he revealed that the ship's electrician had put a voltmeter on the freight deck lights and found, when the transmitter key was pressed, those lights went up seven volts above normal voltage!

Apparently this circuit was somehow tuned to accept the ship's transmitter frequency and was receiving the additional voltage by radiation imput from my "wireless". Nothing serious came of this except for the fact that bulb burnouts were more frequent in that part of the 'Buffalo's' lighting system.

One season followed another and each spring found me sitting in the rooms of RCA, Intercity Radio, and other offices where operators awaited assignments to ships. Eventually I had racked up a second stint on the City of Erie, two tricks on the Seeandbee, the Goodtime, and the Tionesta, then back to freighter life aboard the Cletus Schneider, Angeline, Frontenac, G.A. Tomlinson and the William G. Mather.

(Continued on Page 16)



S.S.STATE OF OHIO-WFR

Twin Stack Sidewheeler Plying between the American side of Lake Erie and Canadian ports - primarily to Pt. Stanley, Ont., and various Island resorts. Wireless shack just forward of the stacks is marked by the awning... "with the fringe on top." The SS State of Ohio burned at her pier in Cleveland in May 1914. From the Collection of Richard Cordo - TA-16.

### SPARKS' on the Great Lakes



S.S. TIONESTA - WCA.
Ralph C. "FO" FOLKMAN was "Chief" on the S.S. Tionesta back in 1928. Ralph has held 23 Commercial "tickers" since 1920. Some of the ships he sailed included the SS Peter Reiss/WNX, SS City of Erie/WFP, SEEANDBEE/WFS (1923; Cletus Schneider/KMEO, SS Angeline/KFLJ; SS Goodtime/WCP, G.A. Tomlinson/KDXJ, SS Wm G.
Mather and the Tionesta. He also worked at "WTK" Cleveland in 1925 and also relieved many times for short periods. After a long stint and on leave from the Cleveland Police Department where he served for 38 years (helping to establish the system and at stations WRBH & KQB57) he took a "re-tread" on the SS SOUTH AMERICAN for several cruises in 1965. Picture of the Tionesta, courtest of Dana Thomas Bowen. Reprinted from Sparks III. SOWP.

(Continued from Page 15)

While on the Seeandbee I saw the transition from the original spark transmitters to tube equipment, the latter permitting radiophone conversations with other ships and shore stations, as well as code. Along with this modernization in marine communication the crystal detectors (with their famous cat whiskers) disappeared as more sophisticated receivers took over.

I never had to send out an S O S, but served as "traffic cop" in connection with one. In 1925 I was summoned ashore from a ship assignment to work the night shift at WTK, Lower Lakes link with shipping, located on the tenth floor of the Cleveland Hotel. My first night on watch (first hour, in fact) there was a faint S O S on the air. Mechanically, I kicked in the big generator for the first time and piped down all ship radio activity in my area after learning that the vessel in distress was off the Virginia coast. Couldn't afford any unnecessary interference at a time like this. I kept curious lake operators muffled, policing the air under my jurisdiction until some hours later when the distress was cleared. I had kept a complete log of all the activity.

Incidently, my chief operator Hank Grossman was the individual who, aboard the Alpena about seven years before, had inspired me to become an operator. He relieved me after the exciting night shift and asked to see the log. His eyes bugged as he demanded "All right, now let's see the real log." When he finally realized that I had been involved in this distress emergency he blurted out, "Wow, first hour on watch in his first coastal job—and he hits the jackpot!"

But shore-station operating somehow lacked those elements I had enjoyed so much aboard ship. It wasn't too long before I was again underway, breathing fresh air and seeing a different port every few days.

Looking back, a number of incidents stand out in my mind. Like the time when that devastating tornado swept through Lorain, Ohio, and it fell to me to serve as relay link between the freighter Grand Island, pinned behind the

CLEVELAND COASTAL

STATION - W T F

500 cycle, Spark Transmitter

Quenched Gap at Right.

Below - Wave-Change Swotcj/

Picture taken in 1925. It had been in operation since 1921. Furnished by Ralph C. Folkman twisted bridge in that city, and the outside world. With no wire service out of the crippled city, the *Grand Island* operator fed his messages to me on low power—and our freighter, off Cleveland at the time, passed the information on to the Red Cross and others.

Another thing I well remember is the unexpected run of jumbo perch off the dock in Little Current, Ontario, where I tied into 270 of them. Our crew ate fish for about a week. I remember the numerous times we carried ore from the Upper Lakes to the hungry furnaces of the Ford Motor Company at River Rouge, near Detroit. We proved to be an important factor in Ford's lofty aim—a new car every fifty-five seconds. I'll never forget July 4, 1924, churning southward across Lake Superior from Fort William to Marquette, Michigan. A sudden drop in temperature and heavy snowstorm coated us with thick ice. I repeat, this was on the Fourth of July!

Not to be forgotten is the time I slipped into the ship's refrigerator, tiptoeing past a sleeping cook, in search of a between-meal snack. The big door slammed closed behind me and the light went out, leaving me to shivver for what seemed an eternity until I was "rescued"—I almost got pneumonia from that deal!

On June 12, 1925, about 2:00 A.M., my ship, WFS, was called by WSBN. "What ship is that and where are you bound," the operator asked.

"This is the great ship Seeandbee and our destination is Buffalo," I pounded out on the key. Thumbing through the ship directory, I found WSBN to be the SS Leviathan, who by now was asking for a repeat. "The great what? "the operator sarcastically keyed. "Forget it "I came back. After all, who's going to boast to the largest ship afloat about being great?

Very few employees of the C&B Lines were ever summoned to appear before T. F. Newman, general manager, unless they were in some kind of trouble. But when this radio operator got his summons, it proved quite different.

"You've been with us for a few years now," said Newman. "And although your ships have been noted for carrying newlyweds to Niagara Falls, you yourself didn't make it to the falls on your honeymoon!" With that he presented me with a pair of tickets, all-expense in scope, for me and my comparatively new wife to visit Niagara Falls in style. "Everything on the house," he beamed. Most of those sailing for the C&B Lines had him pegged as a "whip cracker." I found that he had a heart of gold.

Radio operating aboard the Goodtime proved to be a paid vacation. Federal law stated that this ship had to carry wireless for safety of its passengers on pleasure trips to Cedar Point, Put-in-Bay and on moonlight rides out of Cleveland. Very few messages were handled.

The acquiring of this vessel by the C&B Lines permitted the busy City of Erie to again return to its Cleveland-Buffalo night run. The Goodtime had call letters WCP, which someone said meant "Wireless Cedar Point." She carried a 500-watt spark (quenched gap) transmitter, not unlike the Erie and Buffalo. The operator was also responsible for a PA system that picked up the band on the forward dance floor and blared with big bull horns toward the pier when the Goodtime was departing or arriving.

But finally I succumbed to becoming a landlubber, writing for the Cleveland Plain Dealer as Associate Radio Editor, and serving as operator at Station WHK which was owned primarily by this newspaper. At the time, the city was dickering with WHK to devise a police radio system for Cleveland. Singled out for this task, I worked through the summer of 1929, designing such a project. In September of that year the fruits of my labor were installed at Central Police Station—with six radio cars on the road. I officially moved from the WHK control room to the new one just installed by the police, staying on after joining the department for a lengthy career. Along with "calling all cars" the system eventually added radiotelegraph for communication with other police departments in most major cities of the U.S., bringing together on this net numerous ex-ship operators. I, personally, found a few of my shipmates "pounding brass" for the police across the country.

Then, in 1965, with but three more years to go for police retirement, I was bit by the old "sailing bug" and requested a leave of absence from the department. Shortly, I was serving as operator on the SS South American, luxury cruise ship. Once on board, I found that what had been "wireless" had changed to sophisticated "Radio." From spark transmitters and crystal detectors it had progressed to radar, ship-to-shore radiophone, direction finders, a PA system that utilized thirty-two loudspeakers, and many other innovations too numerous to mention. It was like learning the radio operating profession all over again. And at my age then, it wasn't easy!

At the beginning of the season we carried high school seniors on three, four and five-day cruises. One of these trips catered to exchange students from Mexico, Brazil, Uruguay, Chili and Peru. Plenty of guitars came aboard with these southern kids and, needless to say, the talent shows held nightly were glorified by them.

A whole book could be written on just the exciting experiences on this last of the Great Lakes cruise ships. The old South was an excellent feeder. Once this ship was the recipient of a national award for the best food-ashore or afloat! Waitresses, galley help, bus boys, in fact most of the crew consisted of college students working their way through school. And all were required, when they were employed, to have some special talent that could contribute to the ship's entertainment of passengers. The young fellow that saw to it that I had fresh ice water and warm biscuits at dinner proved to be another Fred Astaire on the ship stage. A dishwasher in the galley, who I later learned was a graduate of the Detroit Institute of Technology, looked and danced like Bill Robinson. The South American was loaded with such surprises. (One of my closest "brass pounding" buddies passed away not too long ago and I became heir to his Vibroplex (telegraph) key. Ellis Smith had more than once expressed a desire to serve as operator on the South but never made it. His key did, however, because I carried it aboard with me to use while handling message traffic. I'm sure he would have liked that.) (Continued on Page 17)





(Continued from Page 16)

RALPH C FOLKMAN



Coastal Station "WTK" atolp Cleveland Hotel during 1920's. Major link with grain and ore vessels and passenger ships. Antennas supported by Hotel's sign 20 stories above the public square.

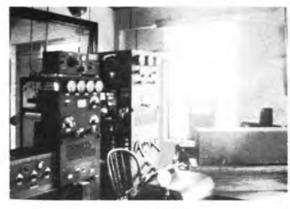
I soon learned that the present-day radio officer was treated as such -- an officer and a gentle-Whoever made up the crew roster certainly had both ends of my welfare in mind. They had me eating in the dining-room with the ship chaplain, and abandoning ship, if need be, with the bartender. One who became a buddy to me was the vessel's photographer, Harry Wolf, who would amble about the decks, snapping candid shots of the passengers, everyone of which became a masterpiece. Many of his photos now fill my files, awaiting those days when I mull over the old experiences.

I won't forget that "big shot" passenger who made a \$9.95 phone call from the ship to his office in Detroit. He later made the gruelling climb back to the radio shack to get the change he had coming --- I think it was a nickel ! In the last hour aboard before flying back to Cleveland and my old police job, I went to the pilothouse for the captain's signature on my license, attesting to my service on board. I got the signature all right, and a fringe benifit too. " A pleasure to have had you aboard. Sparks", from Captain Barney Olson. Thus ended my sailing days on the Great Lakes.

Ralph C. Folkman - R/O.



Through a Porthole



STATION - WGO - CHICAGO Coast station of RCA 1940 atop the Pick-Congress Hotel. (Now Conrad Hilton. Long since closed. Picture by Ralph H.G. Mathews.



Pee Reef Lights in the Straits of Mackinac. In the 1930's it was operated with 4 men but since then the lights are automated.





R.H.G. "Matty" MATHEWS Aboard SS City of Chicago, 1912-1914.

"Matty" 1847-S-SGP became a Silent Key July 3 1982. Operated many Lake ships, also NAJ, GH/WGH, WGN etc. Early ham call - "RM" 1910.



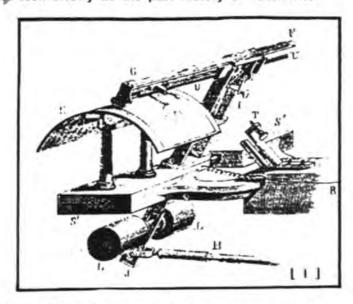
STATION - WMW - Wabash Radio Corporation Stastion at Mantiowoc, WI Operator - Orville O. Keister (2869-P) at typewriter (mill). Otis Granger of the Pere Marquette Ry (standing). The station operated on 1775, 730, 705 and 600 meters as did other Wabash stations: WMX - Manistique, MI, WFK - Franport, MI, and WDM - Menominee, Mi. Keister operated WMW for the last 10 years of employment.

SS SEEANDBEE (WFS) -- Only four-stack sidewheel passenger vessel on the Great Lakes. This ship operated primarily between Cleveland and Buffalo, with occasional charter cruises that included most of the Lakes. During WW-2 she had her top decks "shaved" and served as a flat top to train Navy flyers. She was renamed the USS WOLVERIENE and some 18,00 pilots received training from her 550-long flight deck. Many SWP members were assigned to the SS. SEEANDBEE including the author in 1917 and our Cartoonist Ralph Folkman in 1923. By 1920 the spark transmitter had been augmented with a 250-W phone and CW rig and it was used as a gunea pig for other such installations. She was sold for scrap in 1947 to. A. F. Wagner of Milwaukee. Photo is from collection of Richard Cordo TA-16.

BOOK OF THE "WIRELESS PIONEER"

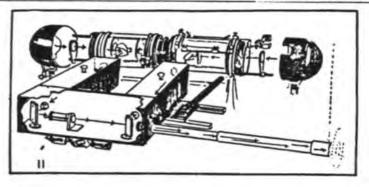
"Facsimile" says Webster, is "an exact reproduction or copy". Prefix it with "Tele" and the function would be performed "at a distance"... "Telefacsimile" - usually shortened to just "Facsimile" or "Fax" in the field of telecommunications usually has referred to a digital system (off-on) which permits the transmission of simple textual material, line drawings, and the like. "Telephoto" (or Wirefoto, or Radiophoto) generally speaking is another very similar system, but analogue in nature, providing for a "grey scale" varying in density between solid black and pure white, for the transmission of photographic type images. As new digital techniques are developed, the distinction of the past between the two may very well become blurred, if not obsolete.

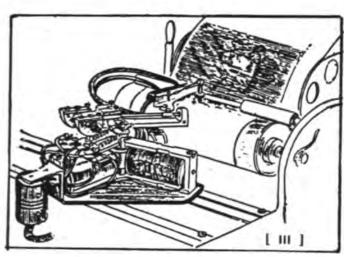
"Facsimile" may, unfortunately, enjoy a reputation of being one of the least understood methods of telecommunicaions insofar as opportunity of economical use and application is concerned. A careful review of the majority of advertisements and promotional material appearing from time to time over the last fifty years would most certainly create the impression that facsimile was on the threshold of introducing revolutionary changes in several areas. And it should be noted, some very large entities became quite active in this field. It was strongly implied from time to time that, for example, "newspapers" would eventually be "printed directly in homes by electronic means". And, most business letters would be transmitted and received in offices in a matter of minutes, and the delays in postal service would forever disappear. But, over the years, periodically the question "Say, whatever happened to facsimile?" would crop up. A completely definitive answer never seemed to appear. The writer, who through this period likes to think he used and experimented with virtually all types of facsimile and telephoto equipment, would like to share his opinions on this subject with others in trying to find an answer to the question. But, first to get things into perspective, let's backtrack and look briefly at the past history of facsimile.



The principle of facsimile seems to have developed very early before the turn of the century. Caselli of Florence, about 1845, called a system he developed "PANTOGRAPHIC" (See Fig. 1). One of his first demonstrations was the sending of a message written in Persian ideographs. Blakewell of London in 1850 named his system the "Copying Telegraph" and he demonstrated how actual tract purposes when required. Bakewell's system involved writing on tinfoil with a pen dipped in varnish. The tinfoil was wrapped around a revolving cylinder type drum on which a stylus rode, moved latterly by an endless screw mechanism driven by a spring clock-work device. A similar arrangement but with chemically treated paper on the drum was used for reception over some kind of a wire line. Passage of current through a stylus caused the paper to darken, and the writing appeared in white. Drum synchronism of course between the transmitting and receiving points was essential. We assume the clocks were reasonably accurate for this purpose.

Alexander G. Bell, inventor of the telephone, also developed in 1875, a system called the "Autographic Telegraph". It was completely different in some respects from the Blakewell system, in that it utilized a long row of styli moved as a group across a metal plate on which messages were handwritten with a pen dipped in non-metallic ink. Each stylus was mechanically connected to a reed, the vibrations of which sent its particular undulations into a common line. At the receiving end a series of reeds covering the width of the recording paper was connected to the line. Each





of these was equipped with a metal point which touched the surface of mercury in a cup when the reed vibrated. This completed a circuit at the receiving terminal from a local battery to a stylus which recorded a mark on a moving roll of chemically treated paper. Systems developed later usually involved rotating scanning and recording drums. (Fig. II) A few used a mecl nical horizontal sweeping action back and forth across the scanned material and the recording paper. (See Fig. III). The big breakthrough was the arrival of the photo-cell for optically scanning images, and tuning forks and crystals for providing sychronization between the transmitting and receiving terminals. A number of systems - all completely operative were developed by Alden, Baird, Belin, Finch, Hogan, Hell, Jenkins, Muirhead, Ranger, Toho Denki and Western Union, among others. A wide range of recording mediums were employed - ink, carbon paper impressions, coated carbon paper, hot wax or gas on chemically treated paper, damp electrolytic paper, and electrostatic methods among other things usually with a stylus of some sort providing pressure, sparks, ink, or just plain electric current on or into the recording medium. One system used postwar-II was the one developed by Cooley of Times Facsimile which produced a large number of fax units for the U.S. Weather Bureau National Met Network, and "Wirephoto" units for the picture service of the Associated Press. Incidentally about this time, Press Wireless developed a "frequency shift" system (akin to FM) which made it possible to satisfactorily overcome "fading" and to transmit good quality news photos globally through HF radio facilities.

Extensive use of facsimile has been for some years been made in the meteorological map field and in some other specialized activities. Telephoto/fax volume grows larger every year in the newsphoto agencies and in multiple location newspaper and magazine printing plants such as that used by the New York Times, Wall Street Journal, NewsWeek, Time Magazine, etc. The newspaper USA TODAY prints daily editions by facsimile in excellent full color at some 17 printing plants scattered over the U. S. fed by geostationery satellite facilities.



Current reports from Japan indicate a growing production of Facsimile equipment. Many improvements have been made in the last few years in shorter transmission time, definition (quality) and ease of operation. Fig. IV shows a current model of a facsimile transceiver made in Japan. Whether some of the application restrictions of the past will still be present remains to be seen. The principle problems of the past are outlined below.

from a speed standpoint.

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SPARKS JOURNAL 7-1
THE GREAT LAKES
THE GREAT LAKES THE "PERISHABILITY" FACTOR: News and weather information are at the top of the list. Both change in content almost from minute to minute. Transmission of such intelligence by the fastest possible means is vital. When used in criminal identification finger prints and photo transmission in a matter of minutes can be highly important. So can the transmission of medical X-rays for a doctor who needs the skillful scrutiny of them by specialists who may be a thousand or more miles distant. Conveyance by mail or messenger may be simply too slow to be effective when graphic advertising layouts with deadlines are involved. Much of this type of information involves elements which just can't, yet, be conveyed by alphanumerical keyboards in sufficient detail and definition. One could readily transmit the entire set of Encyclopedia by facsimile, but

THE "PREPARATION" FACTOR: Business letters, orders, and the like for transmission by facsimile must normally be typed up in some form before transmission. So often it seems as though it has been overlooked that if such intelligence must first be translated into an alpha-numerical keyboard system, one might just as well transmit it by such means (teleprinter, VDT, Word Processors, etc) to its destination in the first place as it is composed.

its content changes only very slowly over the years. Mail, parcel

post service or messenger conveyance would normally be adequate

Other elements have played a part in the problem in the past. For example, while Western Union only experimented with, then rejected as uneconomic, facsimile on its inter-city routes, it did employ facsimile extensively to serve small customers. Florists were an example of business needing to launch perhaps half a



The Western Union's "DESK FAX"

dozen telegrams a day to distant places. To cater to this market WU developed an inexpensive "Desk-Fax" machine (See Fig. V) which was installed in the user's place of business. On its scanned cylinder it was only necessary to wrap a handwritten or typed message, push a button and the telegram would in a matter of a couple of minutes reach the main telegraph office for forwarding over main lines. Between 1949 and 1964 over 40,000 such Desk-Fax units were in use handling some 50 million messages a year. But along came computers, WU's Telex Service, Data Transmission, and perhaps most important, the gradual disuse of telegrams in favor of long-distance telephone calls. Western Union's Desk-Fax business disappeared during the early 1970's almost as quickly as it had been established some 25 years earlier.

One of the reasons facsimile methods for general public telegraph application failed to develop doubtless was because many users of ordinary "telegrams" became very reliant on the telegraph company transforming illegibility into readability. That is, it was common for messages in nearly undecipherable hand writing scrawls (and sometimes scribbled on both sides of the paper) to be handed to the telegraph company for forwarding. Such messages usually reached the addressee - magically - in clean typewritten highly readable form - thanks to the conversion - and even editing to some extent by telegraph operators. Such service was quite unlike that provided by the US Postal entity, which delivered the intelligence filed with it in exactly the original form mailed by a sender. If the receiver could not read the material mailed to him that was his problem. And, it was also unlike the telephone service where a party could obtain an instant repeat of someting he could not understand by merely saying to the other party "What was that"?, or "Say that again".

What about the frequently promised "electronic newspaper in the home"? Those who visualized such a system operating during, most likely, early morning hours on AM broadcasting stations - or even by multiplex at any hour over FM stations - had apparently not considered or known about all the problems which would be encountered. These included the fairly high initial cost of reliable fax equipment, the cost and logistics of recording paper, the reaction of the home owner to having to fold or wind up yards of recorder paper each morning upon arising, the annoying noise of an operating recorder, the physical problem of "quickly turning" to the sports page, or the financial page (as offered by the conventional newspaper), the cost of broadcasting station time, obtaining advertising sponsorship to off-set costs, etc. One element it could have provided was the "recall ability" provided by permanently printed forms of information - namely the opportunity for a subscriber to "reread" a paragraph or sentence if he wished. Quite unlike information transmitted by radio to the ear - or to the eye, which once flashed over the air is, in effect, forever lost!

Facsimile for some years was looked upon as probably having the perfect answer to some of the telecommunications problems involved in alphabets other than the "Roman" style used with conventional keyboards. For example the Japanese language can be expressed moderately well through utilizing Roman style letters in

a phonetic equivalent of Japanese called "Romaji". But for perfect clarity a Japanese uses combinations of Kanji characters (derived from the Chinese) with Katakana characters ("stiff hand") or Hiragana - the cursive form of writing. Kanji is essentially a "pic-ture" language. (More on this later). The Japanese developed several types of facsimile after WW2 to meet a number of requirements, especially for full page newspaper transmission to permit Tokyo editions to be reproduced and quickly printed in other cities in Japan. On business and social messages exchanged within Japan, facsimile never seemed to be used very extensively. Since typewriters capable of writing adequate Japanese were somewhat slow in coming (and cumbersome when they did) messages were normally handwritten. Press Wireless and KDD (Kokusai Denshin Denwa the Japanese international communications company) made a special facsimile service available to Japanese press correspondents stationed in New York and the UN filing news dispatches to Japanese newspapers. But they declined to use it, preferring to use Romaji (see above). This reluctance or refusal - actually - was due at least in part to a psychological attitude - almost all of them felt their handwriting in Japanese characters tended to become a "scribble" under pressure, and it was deemed impolite to subject one's editors to anything they might have trouble in reading. One correspondent told the writer "I'm a newsman, not an artist ...... just don't have time to draw Japanese characters carefully by hand using a pen". So, they preferred and continued to use Romaji over conventional teleprinter facilities. Who could blame them? It really was easier to type the Romaji "TETSUDOO" for example on a regular typewriter or teleprinter keyboard than to draw the Japanese character 3 # meaning railroad. And of course the conventional 3 # facilities provided a carbon copy - important when they filed the original with a transmitting carrier necessary for their files on what they had sent.

The Japanese post WW2 also developed a couple of most unique teleprinters for handling Japanese characters. The first was quite limited in the number of characters because it included English alphanumerics as well as utilizing a triple-shift keyboard they had developed for 50 baud teleprinter circuit. The sending machine was quite large with a great many push-buttons on a panel for producing the characters. The receiving machine employed a cylinder carrying the Japanese characters, and this moved both laterally and rotated and printed the characters through an ink ribbon onto paper.

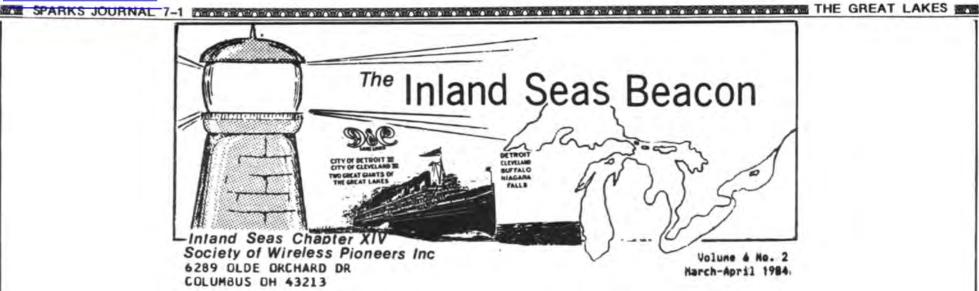
The telecommunications problem in China from a telegraphic standpoint has always been that the thousands of Chinese characters do not convey sounds as do alphabet letters. Instead they convey meaning. (Simplified examples: The symbol for "man" combined with the one for "word" stands for "honesty" - man standing by word. The characters for "sun" and "moon" when combined mean "bright"). This has a distinct advantage - a literate Chinese can communicate with another by writing, even though each may speak one of the completely different dialects in use throughout China. The characters have exactly the same meaning to all literate Chinese - just as a triangle sign by the roadside means ATTENTION! to people of many language habits. When the Morse Telegraph came

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to China a practical way had to be found to use it. A "Sino-Morse" telegraph code would require extremely long combinations of dots, dashes and spaces which of course was completely impractical. As a result in 1882 the first Chinese Telegraphic code book was devised and published by the Danish Company, Great Northern Telegraph Company which had installed a number of submarine telegraph cables and offices in China, Vladivostok and other Asian locations. (See Fig. VI). This assigned to over 6,000 commonly used Chinese characters, a four figure (Arabic) number group which was readily transmitted and received by conventional telegraph operators everywhere. This system is still used today but the code book has been expanded to some 250 pages and lists over 9,000 Chinese characters. Its principal problem lies in the length of time it requires for a sender and recipient and search through the book for the appropriate characters and numeral groups. One report says it takes the average Chinese businessman some 15 minutes to compose or "unpack" a simple ten word message. The adoption of facsimile in China has apparently been rather slow - probably for several reasons aside from polit-diplo reasons, including demand, and the probable inadequacy of suitable channels, but this is expected to change in the near future. Computers have already been designed to accomodate Chinese/English and English/Chinese automated translation.

Two older systems, both semi-facsimile in nature should be mentioned at this point. Each was very reliable and saw many years of service. The first was the "Hell Schreiber" invented by Dr. R. Hell circa, 1934 especially for use on radio transmissions. Alpha-numerical characters were generated by a keyboard 5 unit teleprinter type of punched tape which controlled contact fingers touching a rotating

(Continued on Page 25)



### A SALUTE TO OUR INLAND SEAS CHAPTER



Meet The 'Skipper' of The Inland Seas Chapter

#### "Happy Birthday" Chapter XIV—"Smooth Sailing!

It was Paul and Phyllis Stevenson who, some six years ago volunteered to establish a Chapter of the Society in the area we had designated on our organizational chart as ... "The Inland Seas Chapter Area" ... An area mostly contiguous to or near the American side of the Great Lakes. The Chapter was incorporated under the laws of the State of Illinois on April 6 1979. The Inland Seas Chapter is now over Five years old and doing just fine...Thank You!

Credit also goes to Malcolm W. McRae, one of the co-founders who became a Silent Key Jan. 26 1980. Messrs. Wayne J. Sulser, Clyde C. Richlieu, Theodore K. Phelps, Clarence B. Kelley and Perry D. Ballinger are listed as the Charter Directors. It is noted also that Ero Erickson lent his support in the

establishing of the new Chapter.



PHYLLIS B. The Chapter Founders decided in 1983 that "PHYL" the snow and ice of the 'Windy City' was a bit much so they sold their home in nearby Waukegan, hoisted the Blue Peter, weighed anchor and took off in their flying Flapjack for the South Seas where they spent consid-STEVENSON MANAGE ADONESS erable time criss-crossing Australia, New Zealand and Hawaii. They have been back

in the USA for some time but have their bags packed for Europe and other far-a-way places. Their mailing address until they drop permanent anchor is: 10 Fairview Terrace, Winchester, MA 01890.

Meanwhile, Chapter XIV is in good hands. Theodore K. "Ted" Phelps - W8TP, SOWP - 881-P who has been Assistant Director for some time was elected the Chapters new Director and doing a fine job. He is also Beacon Editor and its Publisher. "Ted" was recently nominated to become a Vice Present in the Society in charge of Communications and as Chief Operator of all Society Nets Continuing tenure will of course be subject to coming election.

As may be expected, many of our members in the Inland Seas Chapter have sailed the Great Lakes and many stories of their experiences have appeared in earlier issues of the "Beacon". Since few members have had the opportunity of reading the Beacon (\*) other than Chapter members, we have selected a few of those related to the Great Lakes, in keeping with the format of this issue. The Beacon has published many articles telling of experiences over the world. They are available to all SOWP members who may wish to join Inland Seas Chapter at a nominal fee . The only requirement is that the member be "Active" [dues paid] on Society records. The address of the Inland Seas Chapter is showing on the heading above.

The 'door-mat' says "Welcome Back" and the latch-string is out to the Stevensons when their peregrinations subside and the wanderlust virus comes back under control.

### AND ITS MEMBERS



The Director of the Inland Seas Chapter XIV is Theodore K. "Ted" Phelps, SOWP No. 881-P, ISC No.9-C. He and his wife, Jodie, live at 6289 Olde Orchard Drive, Columbus, Ohio, 43213. They have three grown children and three grandchildren.

Ted's first commercial radiotelegraph assignment was in the summer of 1939 aboard the Georgian Bay Line's Great Lakes cruise flagship, S/S South American, WGCW. He returned to the South American for the 1940 sailing season. In the summer of 1941, he served briefly aboard the S/S Norh American, WTBA, sister ship of the South American. He then became Chief Operator aboard S/S Alabama, WPCT, the third vessel in the Georgian Bay Line fleet.

He also had two ocean vessel assignments in 1941 and 1942 aboard S/S Alcoa Cadet, WNEO, a general cargo and bauxite carrier and a Socony- Vacuum oil tanker, S/S Stanvac Melbourne, HPTO. He was aboard the latter in Talara, Peru, on Pearl Harbor day, December 7, 1941. The Melbourne became a U.S. Navy auxiliary supply ship for several months along the west coast of South America, making shuttle trips between Peru and Valparaiso, Chile.

Returning to the U.S. in the Spring of 1942, Ted joined the Electronics Training Group of the Army Signal Corps in Chicago. His active military duty began in January, 1943. He served in the U.S. and overseas in Okinawa and Seoul, Korea, in signal intelligence units until March. 1946.

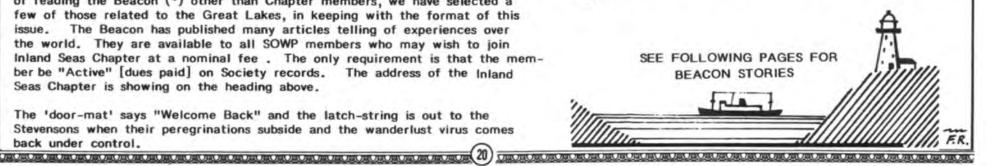
He studied electrical engineering at the University of Michigan and Illinois Institute of Technology and has an MBA degree from the University of Chicago.

Ted recently retired from A.T.&T. (formerly Western Electric) where he was a telephone systems engineer for 38 years in Chicago, New Jersey and since 1976, in Columbus, Ohio. He completed his working career as a Senior Systems Standards Engineer.

He joined SOWP in 1968 and has been Inland Seas Chapter Director and Inland Seas Beacon editor since April, 1983.

He has been a radio amateur since 1933 and has held an Extra Class license since 1969. His seventh and present call sign is W8TP.

Ted's amateur radio activities, in addition to SOWP nets, have included regular participation in the ARRL National Traffic System. Since 1978, he has been the host-chairman of the annual QSO Party held in December by the Telephone Pioneers of America. He is a Life Member of ARRL and BCWA and a gold card Life Member of



### End of an Era

## LAKE CRUISE SHIPS THAT SAIL NO MORE

Only two of the overnight passenger ships that once sailed the Great Lakes, the JUNIATA and the SOUTH AMERICAN, are still in existence, but in altered form.

The SOUTH AMERICAN, last of the Great Lakes overnight passenger vessels, is berthed at a shipyard in Camden, N.J. with hope that something can be done to save her.. When in her glory, she was the flagship of the Chicago, Duluth and Georgian Bay Transit Co., with headquarters in Detroit, Michigan.

The JUNIATA, converted in 1940 to the Milwaukee, Wisconsin, to Muskegon, Michigan, car and passenger ferry, MILWAUKEE CLIPPER, IS BERTHED AT Chicago's Navy Pier as a maritime museum and restaurant that was listed in December, 1983, in the National Register of Historic Places. Her topsides had been scrapped during her conversion, but her 1904 JUNIATA hull remained intact. Her quadruple-expansion steam engines, the last on the Great Lakes, were likewise kept for use in the streamlined CLIPPER. The ship stayed in service until 1970, then was sold in 1977 to a Chicago excursion company.

Cruise plans were scuttled by the Coast Guard's denial of certification, but in 1980, the MILWAUKEE CLIPPER was towed to Chicago and permanently moored at Navy Pier, where hour-long tours are open to the public.

JUNIATA's sisters were the TIONESTA and OCTORARA. TIONESTA was the oldest, launched in 1902 and scrapped in 1940. The OCTORARA was the youngest, launched in 1909. She was converted to a Coast Guard hotel ship in 1942, became an Army transport in the South Pacific and finally was scrapped in San Francisco

The Georgian Bay Liner NORTH AMERICAN, 291-foot sister ship to the SOUTH AMERICAN, didn't fare as well. Sold to investors in Erie, PA, in 1962, NORTH AMERICAN was planned for excursion service. When the plans fell through, an Erie bank sold the vessel to the federal government for use as a merchant training ship. In 1966, while under tow to a new EAst Coast berth, she sank in a storm off Nantucket Island.

The SOUTH AMERICAN still lingers. Her last season on the Great Lakes was 1967, when she carried passengers to the Montreal Expo. From there she sailed to the East Coast for conversion as a seafarers' union trainee dormitory and classroom ship. But modifications were halted when it was decided that fire hazards were too great for dormitory usage. She was towed to Camden, N.J. in 1974 for scrapping and is still there.

She is owned by a Michigan group that hopes to open her as a museum, restaurant and entertainment center at Mackinac Island. They've been hoping that since 1974, and while running up storage fees in New Jersey, "they've made dissapointly little progress," says Robert Pettigrew of the South Jersey Port Corpor-

"Her hull is in reasonably good condition," he says, "although it's got a couple of cracks that would have to be welded. Her wooden superstructure is in horrendous shape."

For the record, SOUTH AMERICAN was built in 1917 and has a gross tonnage of 2662. She is 321 feet long, with a beam of 47 feet. She was operated by 170 officers and crew and had a passenger capacity of 500.

(Most of the information for this article was taken from a story in the Buffalo, N.Y. NEWS for June 11, 1984, written by Mike Vogel.)



Phyllis and Paul M. [Steve[ Stevenson stop off for a visit with Ye Ed and wife on their way to the South Seas. "Steve" and "Phyl" were the founders of the Inland Seas Chapter in 1979.



Radio Room on the SS South American WGCW. Main Transmitter was RCA 3426. Lakes Emergency Fcy. was 410 Khz but changed to 500 Khz in 1940 when spark outlawed except emergency.



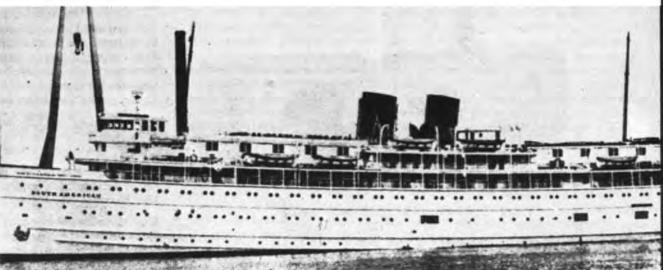
SS.South American - WGCW Emergency spark Xmtr on fwd bulkhead, top right.



Theodore K. "Ted" Phelps 3rd Radio Officer on S.S. South American - WGCW ----- 1939 -----



"Ero" Erickson at the helm of his boat on Lake Michigan. "Ero" is one of the Board of Governors for the Society. 'QTH' is in the Windy City. Ero is also one of the Charter Members of the Society - 21-P.



## REPRINTS FROM THE INLAND SEAS BEAGON

## THE ANN ARBOR CAR FERRIES

BY - GEORGE X.M. COLLIER

To all hands:

Steve has been badgering me for accounts of my shipboard service on the Ann Arbor car ferries ... and if he thinks it will be interesting, I'm willing, and here goes:

The Ann Arbor Railroad based a fleet of five car ferries at Frankfort, namely, the Numbers 3, 4, 5, 6, and 7. I worked on the No. 3, and Will Stelzer, W8CPM, worked on the No. 5.

All boats carried a combination radio op.-purser as a regular part of the crew. Radio work was at a minimum, the purser job having top priority.

The No.s 5, 6, and 7 could haul some thirty freight cars each, plus a few automobiles; the 3 and 4 were in the 24-car category.

As of now, the only boat left of the original fleet is the No.7, which was rebuilt to electric propulsion and re-christened the Viking. I have crossed on her several times since conversion. A second boat has been leased from another railroad, which brings today's fleet to two boats.

In my time, all boats were coal fired, with two triple expansion reciprocating engines. Average speed was around 12 mph--statute miles, not knots.

Ports of call were Manitowoc and Kewaunee, Wisconsin, and Menominee and Manistique in Michigan's Upper Peninsula. All boats ran 12 months a year, and winter crossings sometimes got rather hairy.

All the car ferries I ever saw carried the standard American Marconi half-Kw quenched multiple spark (QMS) transmitters, powered by a Crocker Wheeler 500Hz MG set situated on the deck below the operating table and fed from the boat's DC mains.

These little rigs were housed in a mahogany cabinet about 18" high, 12" wide and 12" deep, with a matching phenolic panel. The panel held the quenched gap, the hot wire antenna current meter, a wave change switch, and switchgear for the MG set. A mica transmitting condenser was also housed in the cabinet.

The spark gap was two gaps in series, housed in a heavy metal and phenolic frame, bolted to the front of the panel.

Movable electrodes were mounted on the ends of metal plugs about  $1\frac{1}{4}$ " in diameter and  $1\frac{1}{2}$ " long, threded approximately 40 per inch. These plugs screwed into each end of the center casting, and the gaps formed discharged to a common center electrode.

Thus it was possible to come up with two gaps, each adjusted to a few thousandths of an inch. The threads were smeared with grease to produce a fairly air-tight discharge chamber.

These rigs were properly called "Impact Transmitters," the name being appropriate because power was applied to the antenna via the "sledge hammer" primary on the oscillation transformer, which was one turn of copper rod 5/16" in diameter.

The secondary was inductively coupled to this turn and adjusted to obtain proper coupling, and loaded into the antenna at the operating frequency or wavelength, as it was then called.

The power transformer was rather small, as 500 Hz did not demand very much core; it put out about 600 volts.



"THAT OPERATOR'S FIST NOT ONLY
HAS A LAKE ERIE SWING...DAMNED
IF IT DOESN'T EVEN HAVE A DIXIE
ACCENT."



These rigs were almost completely noiseless, with just enough whine to give a good side tone. I last saw one at the Ford Museum in Dearborn, Michigan, in 1963.

I like to think it was the one I used, and I believe that it was, because I vaguely recollect some marks I accidentally put on it.

Reveivers were standard American Marconi efforts, using tapped coils and rather large variable condensers. A silicon and a carborundum detector were also mounted on the front panel.

A test buzzer was incorportated in the unit so the operator could adjust his rock to a sensitive spot.

i never used these detectors, since the receivers were modified to use a single vacuum tube detector before I came into contact with them.

Quite a few shipboard ops brought their receivers with them. These were usually composed to three spiderweb coils, a detector, and one stage of audio.

I believe they were manufactured by the Signal Electric Co. of Menominee, Michigan, who also make land line keys. sounders, relays, etc. I never had one, but have seen several. They were quite good units in their day.

Antennas were usually four-wire flat tops, between 150 and 200 feet long and 40 to 50 feet high, strung between the fore and after masts.

The down lead was cabled from the antenna wires and entered the radio room via a porcelain or Electrose insulator of some sort.

Electrose (moulded mud) strain insulators were usually used, but I remember a few of the old Marconi hard rubber tubes over manila rope with the space between rope and tube filled with sulphur. These worked OK, too. Ground, of course, was the ship's hull.

The above covers shipboard installations fairly well, although some of the flossier boats had better equipment. The light-house tenders Sumac and Hyacinth really had the stuff, and were vacuum tube far earlier than the car ferries. I used to drool over that gear!

Now to shore stations: Most shore units were composed of separate parts, mounted as convenient. They were powered from the commercial  $60~\mathrm{Hz}$  mains, using an open core transformer putting out approximately  $15~\mathrm{kV}$ .

Said transformer was mounted in a beautiful mahogany case about 18" square and 30" long, and known as 2 Kw coffins. The coffins were filled with vaseline for HV bushings out the top.

The oscillation transformer consisted of a few turns of copper strip about 2" wide, wound on porcelain spools on a wood frame. The secondary was also mounted on this frame, with provision for variable coupling with the primary.

The transmitting condenser was a bank of 12 to 16 Leyden jars in a wood rack, mounted in a convenient place. The antenna loading coil was a part of most setups; it went between the secondary of the oscillation transformer and the antenna. A non-synchronous rotary gap ran fast enough to give a pleasing tone.

A wavechange switch was mounted on the transmitter room wall and usually was operated by a lever alongside the operator's knee. Sash cord connected the lever and the swinger on the switch.

Receivers were frequently RCA's IP 500 in one of its many forms; the Marconi ship receiver was also used.

Normal watch frequency was 715 meters calling and listening and, I believe, 1060 meters for point to point traffic. I know the traffic wavelength was higher than the calling and listening wavelength.

#### GEO. X. M. COLLIER

(Continued from Page 22)

During WWI, the Navy took over all maritime radio and inducted the civilian personnel into the Navy. This was a bit before my time, so I don't know exactly how it was arranged. I did buy some tubes from the NCO in charge of the Ann Arbor setup when the Navy returned the various stations to civilian status.

We now have a pretty good idea about what was being used on the Lakes during the period 1917-1927 ...

Normal wavelength was 715 meters, and we did not stand a 600 meter watch. A wave-change switch on the QMS transmitters was supposed to cut the rig to 300meters, but I believe that on most transmitters, the switch cut them to 200 meters so the op. could ham.

Mine was this way, although I didn't do it myself. One had to be a bit careful, because mobile operation was not authorized for hams at that time. But who needed to know. We hammed as if we were fixed and at low power -- it was great fun.

Since radiomen will be radio men, each guy thought his trans-mitter tone had to be different from that of any other. To do this, he doctored the motor on the MG set as Follows:

The motors were shunt wound and ran 5,000 RPM. To get a higher note you had to make the motor go faster.

To get this higher speed, one had to add resistance in series with the shunt field. Such resistance was obtained via 100 watt lanps. One lamp gave about 550Hz and two lanps in series gave about 600 Hz.

This meant that those MG sets were turning up around 6,000 RPM. They should have exploded, but if any of them did, I never heard about it.

The higher speed also produced more voltage and we got more antenna current.

The starting current for the MG motor was rather high and, because it was DC, it was possible to pull quite an arc if the starting switch was partially opened while the motor was coming to speed. This made a good cigarette lighter, but it sure was rough on the knife switches.

The shore station guys used to cut the motor on the rotary gap as they were signing, producing a descending tone as he gap slowed. Care was necessary here, because if the gap got too slow, the increased voltage across the Leyden jars ususally blew one or more of them.

Those Leyden jars were interesting. They were giant glass test tubes about  $4^{\prime\prime}$  in diameter and  $18^{\prime\prime}$  long, electroplated with copper both inside and out, to within about two inches of the open end.

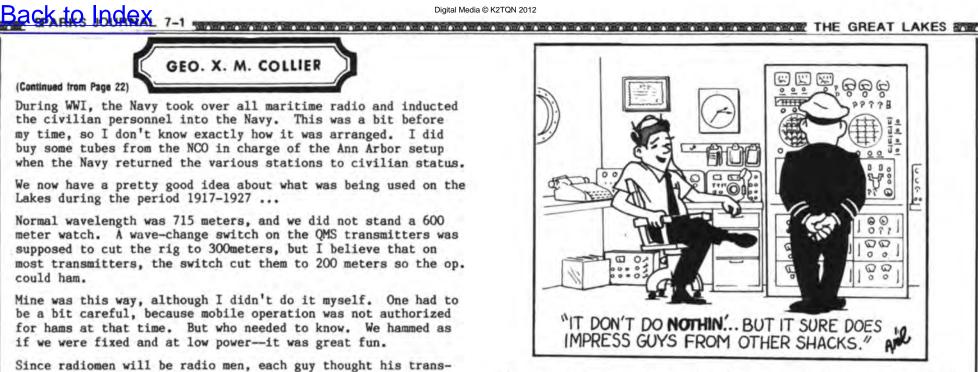
Leads were affixed to these copper coats, and thus each jar became a transmitting condenser. They were connected in para-11el and mounted in a wood rack; 12 to 16 jars were a normal bank. I have no idea about the capacity of such a bank, except to say it was rather high.

W F K, in Frankfort, was located on a bluff overlooking Lake Michigan, and a lot of refuse was thrown over this bluff. I well remember the quantity of blown Leyden jars I found there. They blew, of course, under normal operation, but I'm willing to gamble that the bulk of them were the result of slowing rotary gaps!

W F K was once hit by lightning and rather badly blown up. The rotary gap was in little pieces and useless, and a fixed gap was used as a repair. This, of course, gave a 60Hz note.

This gap was, in turn, replaced by a Benwood synchronous rotary, which gave W F K the most distinctive tone on the Lakes.

The antenna on my boat cleared the stack by about six feet. When the furnaces were firing heavily, smoke shunted the antenna and I put more watts into the stack than I did into the air.



This low clearance also allowed icicles to collect on the antenna wires, which were, of course, laden with coal soot. If the weather stayed cold long enough, those icicles would finally reach the stack and everything would be bypassed.

How to free that icicle? It was easy. One of the crew had a high power rifle; he was a good shot, and it took him only a few minutes to clean off the wires. I worried that he might cut the antenna, but he never did.

My typewriter was a standard Underwood office machine, which I brought aboard primarily to use for purser work.

All was OK until we started rolling. The operating table ran thwartships, and whenever the boat rolled to port, the carriage would return to full left by itself.

I finally tightened the return spring so much that a manual carriage return was a real chore.

A bug key was useless, too, because it went wild when the boat rolled. Since all load on those tubs was above the waterline, they rolled to beat hell--the old No. 3 would be rolling merrily on an invisible sea!

I suppose readers are familiar with using wet tablecloths to keep dishes on the dining table during heavy weather.

Some of you may also have used rolling boards. These had holes for a plate, cup, water glass, and side dish at each place setting, and were clamped to the dining table.

Maybe a fellow could eat seated, but if rolling boards were used, he more than likely stood up to down his chow, and grabbed the edge of the table for stability. The "radio op's squat" was a must if one wanted to stay on his chair!



"By the shores of Gitche Gumee, By the shining Big-Sea-Water "

Remember the Songs of Hiawatha by Longfellow? recall them with nostalgic delight. In today's hectic world it is delightful to go back to the virgin forests along Lake Superior and revisit the wonders of nature as seen through the eyes of this small Indian lad. A pause that is refreshing and might renew some of the joys of living.



GIANT ORE CARRIER

SOWP Member George E. Wedemeyer [1885-SGP] was R/O on the Ore Carrier W.H. McGean/WMIO in 1923. These ships kept the great steel mills on the lower lakes operating. George later became a Radio Engineer and Announcer. He built a very successful electronics business in parts and supplies which he still operates. George still lives in Ann Arbor Michigan.

## Back to Index 7-1 Stories Republished From The Inland Seas Beacon

## SPARKS ON ANCHOR LINE SHIP OCTORARA





The Octorara was a beautiful white ship, part of the Anchor Line fleet comprising the Juniata, the Octorara, and the

In 1920, these ships sailed the Great Lakes, leaving Buffalo at three-day intervals for Duluth at the head of the Lakes, stopping at Cleveland, Detroit, Mackinac Island, the Soo, Houghton on the Houghton Ship Canal in the Michigan copper country, and on to Duluth, Minnesota.

It was a lovely Great Lakes cruise, and at that time many newlyweds took advantage of this delightful type of honeymoon.

To a young wireless operator who had just joined up, the Octorara's preparations to leave Buffalo were most interesting, the baggage coming aboard, everyone (including the young wireless operator) searching for their assigned staterooms, and honeymoon couples and passengers enjoying themselves picking out deck-chair locations that they preferred.

The young wireless operator had been at his post in the wireless room for some time, checking out this and that, when he noticed that the ship was under way. There were warning blasts on the whistle, and soon the motion of the boat could be felt. The ship approached the breakwall.

The wind had been strong from the southwest, which, on Lake Erie, results in huge waves at Buffalo.

As we cleared the breakwall, heading for Cleveland, the first huge wave hit the Octorara. The boat shuddered, and the engines labored; spray came over the bow, drenching the people in their seats in the bow area. Everyone knew we were in Lake Erie--a devil lake, to mariners !

The wireless was crackling with activity; a Canadian ship was reporting to its headquarters that it was heading for shelter behind Long Point; an ore boat was heading for Ashtabula for shelter with its hold full of iron ore.

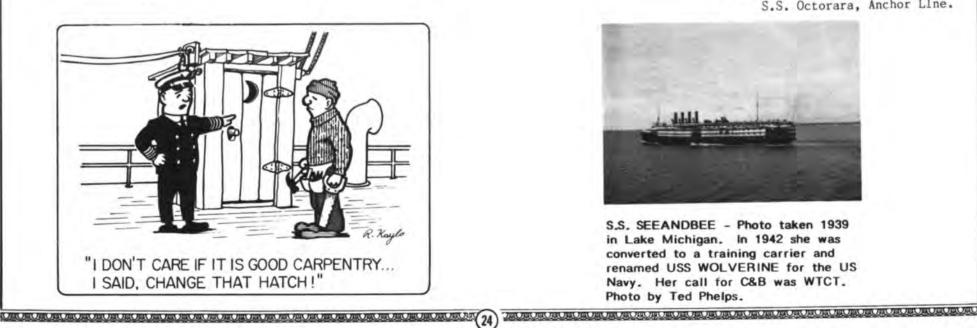
But Octorara was heading out for Cleveland through head seas, and could not head for shelter. It had a passenger schedule to meet !

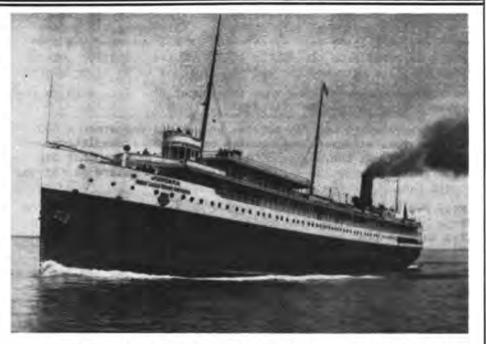
Octorara and its crew fought through those head-seas to Cleveland, burning umpteen extra tons of coal, and arriving four and a half hours late.

In about an hour, we took off again for the Detroit River Light, the Detroit River, and the Upper Lakes, Mackinac Island, and Duluth.

It was a nice trip.

Note: Powell served as Sparks on Octorara, Western States (Detroit), City of Detroit, City of Buffalo, and Seeandbee.





GEORGE H. GOLDSTONE:

JUNIATA . . . BUILT AT CLEVELAND, ONIO IN 1905 FOR BERVICE BETWEEN BUFFALO, DETROIT, MACKINAC ISLAND AND DULUTH BHE WITH MER SISTER BHIFS, TIONERTA AND OCTABARA, CONSTITUTED THE FAMOUS ANCHOR LINE, SAFETY EQUITMENT REQULATIONS AN ISING OUT OF MORRO CASTLE DISASTER FORCED HER OUT OF SERVICE FOR SEVERAL YEARS BUT, REBUILT IN 1940, SHE IS NOW THE STREAM: LINED MILWAURCE CLIPPER PLYING LARE MICHIGAN BETWEEN MUSEE-GON AND MILWAURCE.

PHOTO BY WM. J. TAYLOR COLLECTION OF XENNETH E. BMITH.

## You Can't Fumigate a Ship

### ...in the Middle of Lake Huron

Captain McPherson was a genial Scotsman and, in 1920, the Master of the Octorara, a passenger ship going from Buffalo to Duluth.

When his wireless operator was assigned to a cabin in the stern of the ship, two decks below the wireless operator's operating room, he never expected to wake up to find the place "walking out" with bed bugs.

His solution to the problem that night was to pull down enough cork life preservers from the ceiling racks, spread them on the cabin floor, shake out blankets, and go back to sleep.

Next day, Captain McPherson's wireless operator visited the Captain--the ship was by then in the middle of Lake Huron--expressing his astonishment at the bedbug situation.

The Captain said that he had problems, too, and that he couldn't stop the ship to fumigate it, out in the middle of Lake Huronand he didn't.

He did, however, take action

He found that his Purser had switched cabins so that the Purser's cousin-a deckhand-could occupy the wireless operator's cabin on the top deck, across the companionway from the wireless room, where bedbugs were non-existent.

So, the Octorara sailed on to Mackinac Island, the Soo, the Houghton Ship Canal, thru the Michigan Copper Country, to Duluth.

The wireless operator slept well while on his sleep detail, and was near his beloved wireless equipment.

The Purser was surly because he got "chewed out" by the Captain for trying to pull a fast one. The Purser's cousin jumped ship at his first opportunity.

> H. Powell Davis, W80I 1724-SGP Wireless operator - 1920 S.S. Octorara, Anchor Line.



S.S. SEEANDBEE - Photo taken 1939 in Lake Michigan. In 1942 she was converted to a training carrier and renamed USS WOLVERINE for the US Navy. Her call for C&B was WTCT. Photo by Ted Phelps.

### The "Fax" Story - de Neuf

(Continued from Page 19)

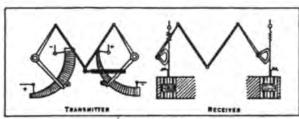
commutator type of drum. The receiving unit utilized a roll of paper tape which was drawn by motor power between a solenoid operated printing "blade" and a revolving inked printing wheel. The solenoid was activated by the incoming radio signals. The small inked printing wheel was fashioned with a helical lip for marking the tape. One of the great advantages of the system was its simplicity and wide tolerance as to speed variations between the rotating drum at the transmitter and receiving printing wheel. Two lines of identical characters were printed, appearing one above the other. (See Fig. VII). When a speed difference occured between the transmitter and receiver units, the line of characters would be printed in a slanting fashion (rising or falling) but one or the other was always completely readable. The unique redundancy factor in the "construction" of the alpha-numerical characters provided a high factor of readability under poor signal conditions. Often signals readable only at slow Morse speeds could be visually read without much difficulty even at the approximate 45 words per minute speed of the Hell system. It was used extensively on news services by radio in Europe, and by Press Wireless on its circuit to Montevideo.



One of the first Japanese facsimile machines developed post WW2, utilized the Hell system principle in all respects except for transmission. The Japanese cleverly substituted a scanning photocell device in place of the mechanical rotating drum. This type of scanning of course permitted any type of ideograph to be transmitted. (See Fig. VIII). Press Wireless for a number of years provided a service from the Orient to Japanese and Chinese newspapers and bulletins printed in ideographic characters in the U.S. However, in systems of this type, the received material is in the form of long strips of narrow paper tape - somewhat awkward and inconvenient for editors - or anyone else - to transfer into sheets or pages.

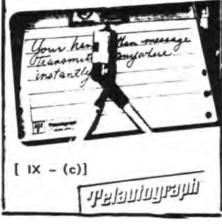
河国何正我大吏周贯。中書居日 河国同正者大吏照原,中華高国京

### Gray's "Tel-Autograph System"



GRAY'S FACSIMILE SYSTEM [ IX - (a) ]





The other system is the "Tel-Autograph" invented by Gray in 1875. While the system is strictly limited in transmission speed to that of handwriting, it carries the distinction of being the only one where transmission and reception takes place the very instant the character is written. The original system primarily involved two rheostats at the transmitting terminal which were varied through mechanical linkages from a "transmitting pen" moved by hand in handwriting fashion. Each rheostat was connected to one DC wireline which terminated at the received point through a solenoid. The armatures were connected by linkages to a recording pen. (Vertical motion changed the setting of one rheostat, and horizontal movement changed the setting of the second one, and consequently the position of the recording pen). An ingenious arrangement lifted the pen from the paper in between words. The system operated very effectively in specialized cases where the rapid transmission of only a few letters or symbols was required. No skill with any kind of a keyboard was necessary. Many readers will recall seeing these devices in railroad terminals used for announcing train arrivals and (25)

track numbers. The writer once saw a Tel-Autograph operating in a chinese restaurant where the waiters would send their orders to the kitchen downstairs written in Chinese characters. Airport weather forecasters used the system to transmit information in the form of meteorological symbols. Eventually the system was redesigned to operate over any conventional telephone circuit. Press Wireless in New York in 1967 conducted the first international test of a Tel-Autograph through the cooperation of the British Post Office Telecommunications facilities. The BPO didn't have a Tel-Autograph unit, but it looped the incoming PW HF radio circuit into the return circuit back to New York. Since PW had two of these units it resulted in the PW Chief Engineer playing tick-tack-toe with his assistant, over a 3,000 mile HF radio circuit to London, and back to New York - a 6,000 mile channel being used to place "X's" and "O's" in the right places!

#### $x \times x$

Footnote: The author is grateful for material and assistance from Messrs. A. Cooley, I. Coggeshall, and M. de Henseler.

#### Addenda to "FACSIMILE" Story

News photos in full color have been transmitted for some years both by wire and HF radio overseas through conventinal telephoto channels by means of the "color separation process" involving color filters and three separate "printers" (red, blue, and yellow) in the form of conventional black and white negatives. After the three separate transmissions are made, a reverse process is utilized to reassemble the material in full color. Thus the comparative transmission has required three times the normal length of simple "black and white".

About 1968 the Japanese firm "Toho Denki" ("Eastern Electric") developed a method for telephoto transmission in full color, pictures 3" x 4" in size in only seven minutes, over a conventional voice-grade channel, with a resolution of 119 lines per inch. No processing or assembly was required at the receiving terminal, and the pictures were reproduced in positive color form. (My recollection is that a "Polaroid" type of film was used for recording). It was reported that NHK, the Japanese television entity ordered and/or bought some thirty of these units for "still" news photo transmission to Tokyo from outlying points.

To the writer, the question is: what if any potential or value exists for the use of "facsimile" to be expanded into "instant color" transmission and reproduction, sans the time consuming photographic process, (assuming of course some genius will develop such a system). The writer also recalls the effort in this direction by CApt. W. G. H. Finch circa 1948 who built and operated an ingenious "color fax" system involving various colored pens or pencils which revolved on a turret for recording. This was synchronized with a revolving color screen device at the transmitting terminal. It is recalled that cartoons from a newspaper were transmitted.

Why "color" for facsimile? Well, allegedly: (a) Color provides additional information in many graphic presentations; (b) Color facilitates the assimilation of certain types of graphic information; (c) Color can be employed to Point up specific information for immediate action or for "flash information; (d) Color can apparently be important in teh medical field as evidenced by the immediate success of color over mono-chrome in closed medical circuit TV (clinical and/or instructional).

It appears that the designers and producers of "photo-copiers" are conscious of some demand for color reproduction. It will be interesting to see what transpires over the next few years. If one wishes to "cogi-dream" what about the eventual "VOXFAX" where digitized human speech is immediately reproduced at a distant point in permanent "record form"/ -- Or 3-D-FAX - with images appearing in third dimensional form?

Oh come now, in the early days when the operation of the telephone was explained to certain authorities and high ranking persons, the "explainer" was faced with his disinterested audience turning away with a remark "Humph - just another toy. It has no practical application as such".

Editorial Comment

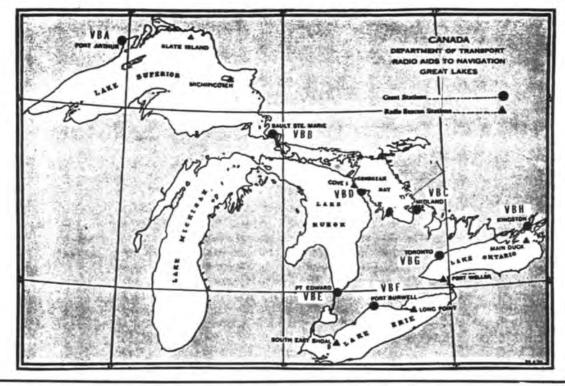
It is the opinion of your Editor that Mr. de Neuf has furnished us an extremely valuable historic record in his research and develop-ing the "Fax" Story. It is certainly a subject, important enough to deserve a place in telecommunications history.

Mr. de Neul has drawn from the experience, knowledge and expertise from such professional authorities as Messrs. Ivan Coggenshall, Austin Cooley and Max de Henseler to name a few, and to whom he is most grateful.

Your Editor enjoyed some experience with the "Tel-Autograph" system at the Chicago Midway Airport where he was called upon to evaluate the service furnished between the U.S. Weather Bureau and the C.A.A Communications Station. The system handled meterorlogical symbols in excellent manner and was well adapted to short exchanges with pilots checking weather systems. It was too slow for volume transmissions. Unfortunately, lack of funds forced its discontinuance.

The Society considers itself most fortunate to be honored with the many historical articles that Wr. deNeuf has furnished us in past years. His scope of experience in the telecommunicatrions field has been quite remarkable. His ability and interest in recording "History of the Art" is indeed lauditory. We think he can rank at or near the top of all historians in the field of Communications





## Early Canadian Wireless Stations of the Great Lakes

CALL	STATION	LATI	TUDE	(N)	LONG	GITUDE	(W)
VBA	PORT ARTHUR, ONTARIO	46°	281	80"	89*	131	45
VBB	SAULT STE. MARIE, ONT.	46*	31'	65"	84°	17'	50
VBE	POINT EDWARD, ONT.	40°	001	10"	82°	241	551
VBD	TOBERMORY, ONTARIO	45*	15'	55"	81°	38'	40
VBF	PORT BURWELL, ONT.	42°	381	35"	80°	471	15
VBC	MIDLAND, ONTARIO	44.	441	40"	79°	51'	45
VBG	TORONTO, ONTARIO	43°	361	50"	79°	231	10
VBH	KINGSTON, ONTARIO	44.	141	05"	76*	271	30
VCA	MONTREAL, PQ. [A]	45*	321	45"	73°	31'	45
VCB	THREE RIVERS, PQ. [B]	46*	201	45"	72*	331	25
VCC	QUEBEC, Q.P. [C]	46°	481	25"	71*	.12	25

- [ NOTES ] (A) Moved from Tarte Pier to St. Michel then to Dorval Airport.

  - (C) Moved from Quebec to Lauzon, then to l'Ancienne Lorette Airport.

[ \* ] Cyprien "Cyp" Ferland who furnished us most of the data used became a Silent Key after a long illness on March 18 1978 The map showing location of Canadian Stations was furnished by Arthur L. Neal



Sault Ste. Marie, Ontario -

In 1912 The Marconi Wireless Telegraph Company of Canada (later known as Canadian Marconi) was awarded a contract by the Canadian Government for the supply, installation, operation and mainten-ance of a 5½ K.W. station at Sault St-Marie com-It was situated at the junction monly called Soo. of the east end of Lake Superior and Lake Huron, approximately three miles outside town, at the center of a forty-acre farm, heavily wooded on all sides, but commanding an excellent view of St. Mary's river and ships entering or leaving the Soo locks.

The outside work consisted of a building, surrounded by entrenched copper plates, construction of two masts 180 feet high comprising main mast, topmast and topgallant mast, such were the requirements at the beginning of the century.

horse-power Fairbanks-More gasoline engine to run the exciter, alternator and dynamo supplied the electrical power. In 1957 the Canadian Government took over control of all wireless stations operated by Canadian Marconi and absorbed all operators under 64 years of age who were then transferred to the Civil Employees Branch with maintained senior-In 1962, continuing the new policy of centralizing Air and Marine communications, the station was transferred to the Airport Gros-Cap. accompanying photograph of the original station shows the operator's quarters on the left and the wireless station on the right. Among the outstanding personalities who were at some time officer-in-charge and well known for services rendered and their contributions towards the gradual improvements in wireless communications one must mention Walter Grey (deceased), Jim Bouteillier (deceased), Ted West, Albert Perry and Tony Blouin.

#### Midland, Ont. - VBC



The Midland Station was built in 1912 for communications with Kingston, Sault Ste. Marie and Toronto plus ships on the Great

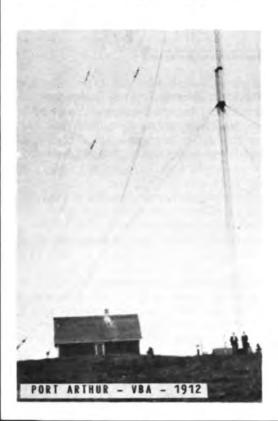


Picture is of the interior the Midland Station (VBC) taken in 1913 showing the dquipment that was in use at all similar installations. The R/O seated at the desk - on duty at the time was G. W.

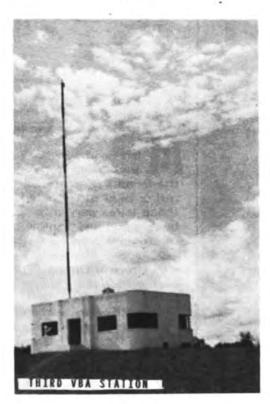
## Story of the Great Lakes

Port Arthur, Ont. - VBA

PORT ARTHUR - VBA
Pictured below is the first station commissioned at Port Arthur
circa 1910-12. Silhoutted against
towers at right are VBA operator,
O. C. Hughes and C. Gurney. This
picture was taken in 1912.







Pictured above is the THIRD station at VBA. The property and building were sikd sine tune agi abd ioerations moved to an airport station.

STAFF - "VBA" - 1912. Pictured below is the crew assigned Port Arthur. Small script make legibility questionable. We think they read: [Top] C.H. Johnson, S.C. Ashley, J.P. Desrosiers, [Middle] M.McCury, O.G. Hughes, T.Stickland, G.Gurney. [Bottom] Name cut.



Pictured below is the SECOND "VBA" Station at Port Arthur. Operators Hughes & Gurney right.









Three Rivers'
VCB

Kingston, Ont. - VBH



Picture of the W/T station at Kingston, Ontario - VBH. The station office is the small building shown at the end of the house.

St. Michel, Montreal - VCA



The Montreal Station - VCA formerly located at St. Michel replaced the former station on Tarte Pier. Picture compliments, Cyp Ferland (Continued on Page 28)

The first radiotelegraph stations in Canada were ereced in 1901. The approximate range at that time was 80 miles, so, in 1904 a properly-organized chain of Coast Stations were built from Port Arthur at the head of Lake-Superior to the sea. There were 27 stations in the group of which 7 were on the Great Lakes.

The station at "THREE-RIVERS" (VCB) served as a relay station for Montreal (VCA) Quebec (VCC) and ships on Lake St.Peter which became redundant in 1922 and closed down permanetly. The accompanying snapshot taken a few months before the sound of that station was jammed out by the more musical notes produced by CW and ICW transmitters. The accompanying picture is taken of Operator Frank C. Allen on duty at VCB in 1911 and gives an idea of the interior of these stations of that period.







#### CANADIAN MARCONI MILESTONE

February 4 1944 was an important date in the annals of the Canadian Marconi Central Telegraph Office at Montreal. It marked the official opening of wireless Printer Transoceanic Service. It was new and sensational at that time and no one could have foreseen and/or predicted the tremendous progress in Telecommunications during the following decades. In the picture (from bottom left clockwise) -R.T. Smith (D); J. Bowman; D. Macdonald (D); J. Baxendale (D); W. Burnette; and A.D. Perry (D). Furnished by Cyp Ferland - 770-

#### Lauzon, Quebec - VCC



The Quebec Station at Lauxon - VCC replaced the one erected on the Citadel at Quebec.

#### THE WIRELESS TELEPHONE, AS SEEN BY ARTISTS





From the New York World.

[ Reprinted from 'The Wireless Age' - Dec. 1915 ]

When a Woman Walks Through a Wireless Telephone Wave



From The Portland (Ore.) Telegram.

(28)



any salt-water Pioneer Wireless operators may consider the Great Lakes are five large puddles, located several hundred miles west of Brooklyn, N.Y. However, a howling gale on those lakes can whip up treacherous seas in short order, and heaving-to has limitations with shore-lines not too many miles in any direction.

As Wireless Officer/Purser on Carferry Steamer Maitland No. 1 plying between Ashtabula, Ohio USA and Port Maitland, Ont. Canada on Lake Erie, I recall one wild stormy August 20, 1926 Captain Keeley was on vacation, and First Mate Captain Heyman took over as skipper.

With the foul weather outside the Port Maitland piers, the return trip to Ashtabula harbor, was delayed, to take precautions that all the railroad cars loaded aboard were securely fastened with clamps and jacks. This delay permitted completing pursers duties before sailing. A copy of that night's Wireless log best describes the insuing events.

#### RADIO LOG Steamer Maitland No. 1 / WLE

#### August 20, 1926

8:34 PM Maitland left slip Pt. Maitland bound Ashtabula. 8:43 PM Left Piers Pt. Maitland Weather: Wind ENE Gale. 10:30 PM ENE gale, rolling heavy, hauled towards south shore on various courses. (from Mate's Log.)

#### August 21, 1926

12:30 AM Steamer in distress sighted 15 miles off Erie, Pa. We hauled toward steamer at 12:40 AM. Captain Heyman advised Chief Eng. of the facts and tells him to get up. I was called at the same time to start wireless watch.

1:00 AM Called "CQ" Some boat off Erie in distress burning "Vary-lights." We are proceeding towards her to see what the trouble is.

1:10 AM Worked CHL reported he left Erie at 9:30 PM. Gave particulars to WEN, CHL, WFP (WEN-Str

North American, WFP-Str City of Erie, do not recall C-Canadian calls) WFP advises he passed Erie a while ago QRD Cleveland asks if anything he

1:20 AM Maitland now 1000 feet off disabled steamer, her dynamos still running, lights burning. Two life boats with occupants observed drifting in vicinity of vessel. Maitland maneuvering to get lifeboats along side. Flares burning every few minutes from lifeboats discloses their location. Maitland's deck lined with members our crew, with ladders, lines and extension lights.

1:30 AM Unknown Steamer sinks.

1:35 AM CQ-Some unknown steamer sinks 8 miles off Erie, crew in two life boats buring red flares, Maitland endeavoring to pick up crew.

1:40 AM Gave particulars to WFP WEN telling them to inform their Captains. Received instructions to send following MSG to Coast Guard: "Erie, Pa. Boat sunk five miles north Erie two lifeboats containing crew adrift in lake flashing vary lights. Sig. Capt. Heyman."

1:45 AM Called WTK (Cleveland)

VBG called WLE and ask if anything he can do. 1:53 AM

2:00 AM Transmitted the Coast Guard MSG to VEG (Toronto?) 2:10 AM Maitland still maneuvering to reach the lifeboats.

Its sleeting mixed with rain, and gale force seas, boat rolling heavily as it turns into the trough.

VBG transmits following SVC MSG: "To WLE: Phone operator advises that phone at Coast Guard Erie out of order. Sig. VBG". Will I put your message on land-line? Tell him Stand-by.

2:18 AM Contacted WEN (North American) He advises his ship will pass our location soon, asks if anything they can do. Transmitted latest information to him.

Maitland attempting to get the lifeboats on the lee side, another attempt to get crew. (Continued on Page 29)

## he OG of the SS:Maitland

2:30 AM Lifeboats now alongside, and lines to them. In spite of heavy rolling, members of crews are scrambling aboard to our deck. Obtained the name of their boat from first man aboard.

2:35 AM CQ Two lifeboats along side, crew coming aboard. Name of sunken boat Howard S. Gerken.

2:50 AM Owing to panic in one of the lifeboats, the line was released, the boat was swept away. An immediate check of the crew indicated three members swept away into the darkness. This information transmitted to WEN and WFP.

2:55 AM Called WTK MSG.

3:00 AM Called WTK, WFP called WTK

3:05 AM Called VBG Rush MSG.

3:15 AM VBG MSG to Warnick Hamilton - Str Howard S. Gerken sunk 8 miles north of Erie picked up two lifeboats one still adrift containing three men can you notify Coast Guards at Erie quick. Sig. Heyman

3:20 AM Another check of the crew picked up, shows only sixteen rescued, indicating four members of crew still in lifeboat. WEN advised, and he informed me they have us in sight and they have their searchlights working.

3:25 AM Called VBG.

3:35 AM VBG MSG to: Warnick Hamilton; Am standing by waiting for daylight as missing boat has used up all lights carried heavy gale blowing and a big sea running in. Sig. Heyman.

3:40 AM Called WTK.

3:45 AM WTK MSG to: Coast Guard Erie: Str Harold S. Gerken sunk 8 miles off Erie one lifeboat containing three men still adrift have picked up two boats. Sig. Heyman.

4:20 AM Contacted WTK He advised telephone operator work-

ing on the Erie call.

4:30 AM WFP advised VBF calling me. VBG MSG from Hamilton to Heyman Maitland; Message received unable to communicate with Erie by telephone but have telegraphed Coast Guard station there and have notified Buffalo Coast Guard advise further. Sig. H G Malcolmson.

4:33 AM WTK SVC from: To WLE Phone opr advises Coast Guard Erie phone out of order. Sig. WTK.

4:50 AM Called VBF

4:53 AM VBF MSG to Malcolmson Hamilton: The steamer Gerken went down about one thirty am. We stood off a thousand feet, picked up seventeen men in boats, three men still missing. We are now waiting daylight. Sig. Heyman.

5:20 AM Contacted VBE.

5:30 AM WTK SVC from To WLE Is Captain of Gerken aboard make sure please get hold of him. Sig. WTK

6:03 AM VBF MSG from: To Heyman Maitland VBF. Your first message delivered Coast Guard Erie through New York Central keep me advised of your movements. Sig. Malcolmson. 6:04 AM WTK SVC to. Captain of Gerken right here now.

Sig. WLE

6:05 AM WTK Svc from. To WLE: Cleveland News desire full story for print. They agree to pay charges make it brief advise Gerken Captain name if loaded and with what where bound to and from; name size of ship, cause of sinking and names of missing men. Sig. WTK.

6:20 AM WTK MSG to Cleveland News Cleveland. Str H S Gerken 1422 gross tons loaded with sand Erie peninsula bound Buffalo sprung a leak bottom starboard side rapidly filled up sank 1:30 carferry Maitland picked up sixteen men still four adrift in small boat missing Geo McMinn Mate, Richard Freeman watchman, Herman Wageman fireman, Wm Logan Derrick

engineer. Sig. Captain J B Gamble. 6:25 AM Other boats sighted coming out of Erie.

6:30 AM Called VBF.

6:40 AM VBF MSG to Malcolmson Hamilton. We are pro-

ceeding Ashtabula. Sig. Heyman.

7:00 AM WTK MSG to U S Hydro office Cleveland. Str Howard S Gerken foundered about six miles north of Erie might prove a menace to navigation for loaded boats. Sig. Heyman.

7:35 AM WTK MSG to Geo Marr Lake Carriers Cleveland. Str Howard S Gerken 42 foot beam foundered about three am this morning might prove a menace to navigation six to eight miles north from peninsula point. Sig. T Heyman Master.

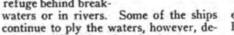
8:05 AM WTK MSG to U.S. Local Inspectors Cleveland. Beg to report this morning between 2:20 and 3:00 rescued sixteen men from Str Howard S Gerken which foundered off Erie eight miles north by west in a heavy sea owing to panic in one of the Gerken's life boat four men were swept away in the boat and disappeared in the darkness and no lights were seen

(Continued on Page 30)

### "Bucking" the Great Lakes Ice-Jams

Difficulties of Navigating the Inland Seas in the Winter

LL along the shores of the Great Lakes, from Buffalo to Duluth, there is bustle and activity among wireless and shipping men; for the navigating season proper has just opened, the ice is beginning to disappear, and vessels which have been laid up for the winter are leaving their havens. From April until December an endless procession ships passes through the Soo and comprising many vessels discharge their cargoes at the various But when ports. the lakes are covered with ice and chill winds sweep across the frozen surface, the greater number of these craft seek refuge behind break-



spite the difficulties of navigation.

Wireless operators who were detailed on vessels that were in service on Lake Michigan in February, 1915, well remember the sea of slush ice through which the ships were compelled to Low temperature and snow

storms brought about this condition. On



An ice-encased car ferry in Lake Erie on January 30 last

February 4 seventeen vessels, among them being the George, steamship were imprisoned in ice-jams in various parts of the lake. The situation of those on the vessels was far from enviable, but it was alleviated considerably by the Marconi operators on the craft who established communication with the shore stations and sent information concerning the marooned folk.

There is no lack of thrilling experiences for the wireless men who voyage the Great Lakes in the winter months. An illustration of this statement is contained in the story of the wreck of the steam-

er Iowa which was crushed in the ice in Lake Michigan off the mouth of the Chicago River on January 3, 1915. The Iowa, with George Keefe in the wireless cabin, was bound from Milwaukee to Chicago. Four miles off the Government lighthouse she became wedged in the ice. Gradually the frozen cakes closed in on the vessel and a hole was torn in her bottom. Through this the water poured in

#### Continued at top of left column below. See note bottom.

such great volume that she began to sink. Keefe, in the meantime, had not been idle. He sent out the SOS, and tugs were started to the rescue. The vessel was settling in the water so rapidly, however, that the crew of seventy and one passenger clambered over the side of the vessel on to the ice. Keefe remainted at his post to flash the appeal for aid until five minutes before the Iowa sank, when he joined the others, and made his way to the shore by walkinga distance of a mile and a half.

There are, of course, other perils incidental to navigation in addition to those resulting from the formation of ice. Car ferry Pere Marquette No. 19, with Mar-coni Operator Millgard on board, ran

time Millgard reported that the water had reached the boiler room, and that he would only have power for a few more minutes to operate the set.

The life-savers were not idle meanwhile, and the members of the vessel's crew were kept informed by wireless regarding the progress of the efforts being made to effect a rescue. Those on the 19 were taken ashore on the afternoon of January 18. The vessel, which was considerably damaged, was towed to dry

The incidents related in this article are brief examples of the events which go to make up the life of an operator on Great Lakes craft. To be sure he does not have the opportunity given to his brother



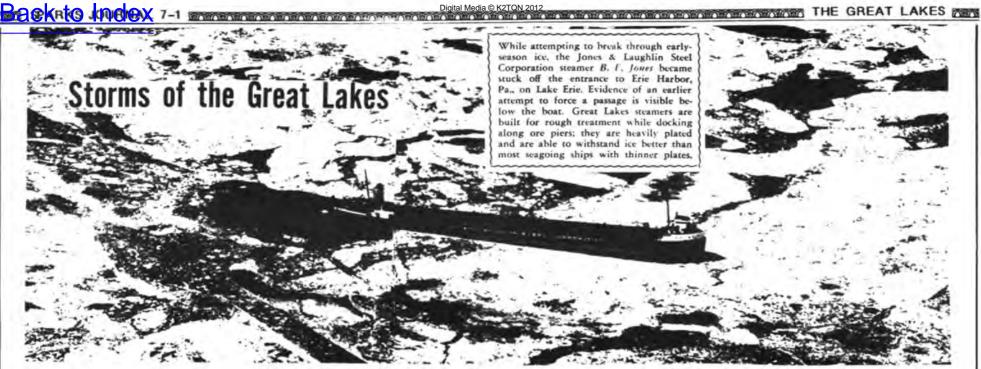
The vessel pictured in this photograph shows plainly the effects of battling with ice and storm. The camera man snapped her at Rondeau, Lake Erie

miles north of Ludington, Mich., early in the evening of January 17 last. Millgard used the wireless to obtain aid and Pere Marquette steamers Nos. 17 and 18 sent word that they were ready to go to the assistance of the stranded vessel. They were informed, however, that because of the heavy seas and the shallow water, it would not be safe to make the attempt.

Messages were exchanged between the 19 and the officers of the Pere Marquette company until three o'clock in the morning of the following day. At that

aground in Lake Michigan, about four of the Atlantic or Pacific vessels for long distance communication, but he does have frequent occasion to display his courage and judgment when these qualities are essential. And, like the wireless man of the salt water craft, he has shown that he is not lacking in

SPECIAL MOTE ... Reprinted from the April 1916 issue of "THE WIRELESS AGE"



Reported by RALPH C FOLKMAN

Most of the personal experience stories that have appeared in these publications have functioned aboard ship, primarily on

But saltwater and ICE are not compatible so here's a FRESHWATER yarn about the latter, a Great Lakes affair that became an obsession with me fifty-five years ago. So much so that I still dread a thermometer reading below 32 degrees...it'll probably mean ICE!

boarded the PETER REISS (WNX) at Buffalo. N.Y. April 13, 1922 - my first assignment as wireless operator. It was a warm and balmy spring day down here on the lower lakes, a pleasant respite from the severe winter that had just departed. We didn't suspect that winter hadn't relented one bit in the upper lakes which was to be our destination.

Light short-sleeved shirts appeared on deck light short-sleeved shirts appeared on deck as our 620-foot freighter plowed west, then due north towards Wisconsin. But within hours the thermometer skidded and heavy jackets were in style. Then came the ice fields and we were again encompassed in win-ter as we slithered through the crackly stuff into Green Bay. Wisconsin into Green Bay, Wisconsin.

To permit overhead unloading, the ship's long wire 600-meter antenna had to come down and I got my first experience lashing it every six feet to the ship rail with twin A helpful mate coached and assisted this rookie in this task that would have to be done each time we entered a port. Unloaded and the antenna again up, we soon were at the "Soo" Locks and surprised to learn that

we were the first ship of that navigational season to request "locking through" to Lake Superior. The vessel was light and scheduled for a load to transport to the lower

Our skipper, Bill Landon, who was in his seventies and smoked a meerschaum pipe that looked like a tenor saxophone, was indignant looked like a tenor saxophone, and his when the lock officials questioned his entering frozen Lake Superior. to sail this ship," he growled. at anchor until the ice melts." "Not to lay

Eventually under way, we started crunching a path through ice fields that progressively thickened as we negotiated them. A heavy snowstorm at the time didn't help matters one bit. The Canadian government had requested that we, being the first through, should send back "ice condition" reports every three hours as we pushed through the 410 miles to Duluth.

It might be mentioned here that the wireless shack was part of the dunnage room and just above the water line in the very bow. Need less to say, the crushing and cracking of ice sounded like a continual thunder storm.. a few scant feet away from me with headphones clamped tightly, attempting to copy signals. What the noise didn't accomplish, the jarring DID. Keeping a crystal detector operat-ing was impossible.

I had at my disposal a cumbersome Marconi receiver, a 500-watt (retary gap) spark transmitter and a stubbern desire to do an impossible job through this ungodly bedlag. Getting off my 3-hour ice reports to VIN at the Soo became erratic and had to be handled only during the quieter periods when we were slicing through thinner ice or those few short breaks when we encountered small patches of open water.

Some portions of Lake Superior were really stubborn, offering ice so thick we had to ride up on it, cracking it ahead of the ship and then driving into the newly created splits. It was a long grind of bucking, then backing out of the blockage only to hit

it again and hope for that ear-splitting "crack" that sounded not unlike naval gun-

Eventually, requiring days to travel what would have been hours in the good old summer time, we made Duluth.

Then the 210 miles up the north shore to Fort William, Ontario. Breaking our way into Thunder Bay was probably the toughest encounter with thick ice. I admit that more than once I had my doubts about the bow plates holding...even pictured myself being pinned down by tons of ice, still clutching the key!

Slowly we bucked, backed and bucked again as the PETER REISS inched her way into Fort William where their town band played a tune of welcome on the dock and a goodly crowd waved. After all, we had broken a path into this hibernating community that depended primarily on navigation. This would offi-cially open their 1922 shipping season.

It was almost comical to witness a few freighters jockeying for access to the new channel we had sliced open for them. Those vessels had "wintered" there. Impatient crews were anxious to embark on a new season, but had to wait until some ship, such as ours, "broke the ice."

The 34-man crew of the PETER REISS dined in style that night, right in the town hall where a spread was provided by the friendly towns folks. Movies followed. Our Captain Landon, during welcoming specches, received a gaudy brown derby hat embellished with Canadian and American flags. Last but not least, this "ice reporting operator" was presented with a case of high-powered Canadian beer which was empty after a couple of crew members offered to lug it back to the ship for me.

In a few days we were back down in Buffalo after that 2810-mile sojourn from warm Spring into frigid Winter and back again into heavenly weather. So now, as I think back, I'm having a gingerale - no icc, please!

#### ime and Tide Took Toll on Liners

Great Lakes passenger liners were once a vital part of Buffalo's maritime life, but times and the economic tides of the past two centuries refused to wait for them.

The first lakes steamship, the Walk-in-Water, took to the waves here and foundered off Buffalo Harbor in 1821. Its engines were used in the second ship, Superior, and Buffalonians rushed to complete harbor improvements here before its launching in 1822.

The Superior also wound up as a shipwreck, but the trade prospered. By 1833, there already were 11 steamboats carrying pass

Buffalo. By 1858, there weren't any.

The financial panic of 1857 killed off the first great wave of steamboating and ended the era There had been some of the "Palace Steamer. famous wrecks - the Erie, burning off the Lake Erie shore between Silver Creek and Dunkirk in 1841 with the loss of nearly 200 lives, the Alahama, wrecked three miles off Buffalo harbor in an 1848 storm and an attraction for modern-day divers, and others - but most of the victims were merely laid up and their machinery salvaged.

By the time the panic ended, railroads had the immigrant and freight trade. A second cra, starting in the 1870s, was built on the excursion trade but started a similar decline as the automobile gained popularity. World War II and air travel struck the final blows.

Some famous Great Lakes liners, many of them familiar sights in Buffalo, and their fates:

Buffalo - Launched in 1837 as the Manhattan but renamed as soon as the investors left the New York City docks, it was later converted to sail and sank in 1848 during a Lake Michigan

Great Western - Another 1837 vessel, launched in Huron, Ohio. Retired in 1835, scrapped at Tonawanda.

Palace Steamers - Some of the best were built in Buffalo, during an era that began in 1838, peaked in 1850 and ended in the panic of 1857. The Northern Indiana, built in 1852, was a "jinx" ship suffering a series of misadventures before burning in 1856; its sister ship, the South-ern Michigan (1852), ended more typically by being laid up in 1858, its engines removed in 1863. Similar fates befell the sister ships Crescent City and Queen of the West (1853), Mississippi and St. Lawrence (1853), and Plymouth Rock and Western World (1854).

Western Metropolis - Built in Buffalo in 1856, sank in Lake Superior in 1863.

City of Buffalo - Built in 1857 to replace the Northern Indiana, the city's namesake vessel made only one season of runs before the panic. Since it was new, it survived the layup period to make some trips in 1859, 1860 and 1861, but its rich furnishings were stripped and it became a 331-foot bulk freighter in 1863. It burned in a spectacular Buffalo waterfront fire in 1866, but the hull continued in use as a barge until abandoned in 1875.

India, China, Japan - Three famous sister ships launched in 1871 at the start of the second steamer era, they were remarkably long-lived. All were replaced in the lakes passenger trade early this century by the Tionesta, Octorara and Juniata. The Japan became a Canadian barge and was scrapped in 1935; the China became a floating salt store in Newfoundland in that same year; and the India drifted eventually into the South Pacific trade and was lost in World War

City of Cleveland - Became St. Lawrence Seaway barge, 1955.

City of Erie - Involved in the famed 1901 Lake Erie Race with the steamer Tashmoo, she was scrapped in 1941. 

City of Buffalo - Launched in 1895, the second vessel of this name burned in Cleveland in 1938 and was scrapped in 1940.

Seeandbee - Built in 1913 for the C&B line, her superstructure was removed and a long, flat deck installed in 1942 to make her the USS Wolverine, used on the lakes to train fliers in aircraft carrier take-offs and landings. She was scrapped

Eastern States — Built in 1902 with a sister ship, the Western States, it fell victim to the economy and the failure of her steamship line. It and the Greater Detroit were towed from Detroit in 1956 and set afire. Both burned to the waterline.

City of Grand Rapids - Torched, 1951.

Greater Buffalo - Built in 1924, it joined the Seeandbee in military service. Converted in 1943, it became the aircraft carrier USS Sable, another Great Lakes training vessel. It was scrapped in 1948.

Greater Detroit - Built in 1925, it was torched with the Eastern States in 1956.

Hamonic - Destroyed by fire in Sarnia, Ont., in 1945.

Alabama - Scrapped, 1961.

Noronic - Burned in Toronto Sept. 17, 1949, with the loss of more than 200 lives.

Assinibola - Sold in 1968 to New York City singer Toni Carroll and other investors, stainedglass portholes and all, it was intended for a floating night club in Port Huron, Mich. The plans fell through and it was sold to a Philadelphia group that envisioned a luxury restaurant on the Delaware River; the Assiniboia left Sarnia, Ont., under its own power and successfully steamed to Philadelphia. The Canadian-Pacific liner was destroyed by fire Nov. 11, 1969 in West Deptford, N.J., at its moorings across the river from the Philadelphia Naval Yard.



## Vicious Lake Erie Gales of January 1907 Are Recalled

By VIRGINIA DELL

Sixty years ago on Jan. 20, the wind was so strong that two ships in Buffalo Harbor were blown out of the water.

The legendary Lake Erie gales which periodically sweep Western New York invariably bring forth tales of big winds of yesteryear. But this is a true story and local historian Roy W. Nagle has a photograph to prove it.

Shortly after midnight that day in 1907 a chill wind began blowing off the lake, and an ill wind it was. It blew all night and most of the day. At its peak, it blew at a velocity of 70-80 miles per hour for eight hours.

WAVES POUNDED the lakefront and reached the highest water level recorded for 20 years. The icy waters inundated Squaw Island, Strawberry Island and the upper part of Grand Island and the torrent rushing into the Niagara River caused the water in the gorge below the Falls to rise 20-25 feet above normal. The Buffalo River level rose eight feet.

rose eight feet.
All over Buffalo and Western
New York, chimneys toppled,
roofs were damaged and unstable buildings collapsed. Two
persons died in Dunkirk.
When the wind finally subsid-

When the wind finally subsided, the lakefront was littered with the wreckage of boathouses, wooden breakwaters and docks, small craft, icehouses and fishermen's shanties.

FIVE OF THE 23 ships anchored in Buffalo Harbor were firmly aground. Two of them stood on the beach at the foot of Michigan Ave.

Michigan Ave.
The Buffalo Express described
the storm this way:

the storm this way:
Gentle spring, as exemplified by the mild weather of Saturday, with its warm rainfall late at night, was aruptly and bru-

taily assaulted and put down and out within a few hours by blustering winter, with a young tornado in one hand and an incipient blizzard in the other."

THE BLIZZARD did not materialize, but cold weather did, and thousands of persons braved it the next day to see the Hurlbut W. Smith and the William Nottingham which had been "carried ashore bodily" at the foot of Michigan St. The steel sister ships, 450 feet long, with 40 foot beams and 7,000 gross tonnage, were stranded like whales on the beach. They lacked 50 feet of crashing into a row of fishermen's bungalows.

The ships' anchors failed to hold after 1,500 feet of wooden breakwater was ripped loose by waves and flung upon the beach. The Buffalo Express noted that the debris would "furnish the fishermen and other Islanders with firewood and building timbers for months and months." The

paper also noted that moders concrete breakwalls were undamaged.

A PROMINENT lake captain blamed lakefront damage on lack of ice in the lake. Its absence permitted water to wash over the breakwalls "like a tidal wave," he said.

At the Mutual Elevator in Ganson St., a wall collapsed and knocked a hole in the neighboring freight house

In the Tonawandas, high water swept away a mile and a half of lumber docks and millions of feet of lumber were carried into the river. The Niagara Silk Co. plant in Sweeney St. lost its west wall and half of its roof.

A dispatch from Niagara Falls in the Buffalo Express reported that tracks for the railway in the lower gorge were washed out in eight places. The line's manager said, "It was thought to discontinue the service between this city and Lewiston for the time being."

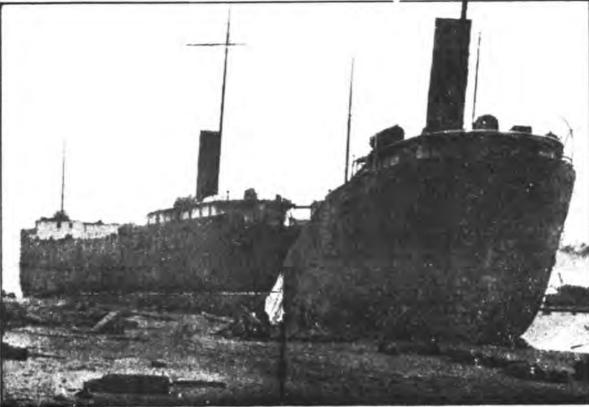
PARTS OF THE steel plant in Lackawanna were still under five feet of water the next day. In Lockport, a lift bridge over the Erie Canal in Chapel St. was wrecked by pounding from two stone boats which broke loose from their moor-

ings.

The Dunkirk fatalities were a child, who drowned during a rescue attempt from a marooned lakefront house, and a woman on her way to witness the scene, who was crushed by a falling ice house wall.

THE ONLY FATALITY reported in Buffalo was a dog, struck by a wind-borne chimney brick. In LaSalle, near Niagara Falls, two pet bear cubs drowned.

The first "conservative" damage estimates were set at \$2-million, according to The Buffalo Express. After the storm had passed, estimates were revised down to half of that figure. "It Looks a Bit Better Now," was The Buffalo Express headline.



Battered hulls of sister ships lie aground at foot of Michigan Ave. after 1907 storm . . . gale 60 years ago took its toll

These two ships were blown ashore in front of the old Clark Wireless Station on the beach.

## Graphic Report

By DICK BURKE

November can be a wicked month on the Great Lakes — witness Monday's wild, southwesterly winds and dark, rolling storm clouds.

As tremendous seas crashed against breakwalls, the Coast Guard station was flying its infrequent, full storm warning, in a single square red flag with a black center. This flag signals mariners to expect winds of 55 mph

and over. It was more than accurate.

The Coast Guard logged wind velocity at 63 mph at 2:25 PM. By night the tower there showed the same warning: Two red lights, one above the other.

The storm was so violent that the water at this end of Lake Erie was about six and a half feet higher than

City folk notice a wicked storm by swinging traffic signals and hazardous walking as the tall downtown buildings act as wast funnels and drafts.

## 250 Ships Raced to the Soo in '26,



IN RESIDENTIAL areas, garbage cans start rolling across lawns and into the streets, and dry old tree limbs fall. But this really is no measure, nor is the buffeting a car feels as it speeds along a Thruway.

There's an historical marker near Port Sanilac which suggests what a howling storm is on our inland seas. It recalls another November blast and reads:

The Great Storm of 1913

"Sudden tragedy struck the Great Lakes on November 9, 1913, when a storm whose equal veteran sailors could not recall left

in its wake death and destruction. The grim toll was 235 seamen drowned, 10 ships sunk and more than 20 others driven ashore. Here on Lake Huron all 178 crewmen of the eight ships claimed by its waters were lost. For 16 hours gales of cyclonic fury made man and his machine helpless."

(31)

## November Storms

BUT FELLOW newspaperman Dwight Boyer of the Cleveland Plain Dealer remarks in his "True Tales of the Great Lakes."

"The historical marker is in error on the number of vessels lost. Ten were indeed lost on Lake Huron and Lake Superior. But somebody forgot to count the barge 'Plymouth,' lost with all hands on Lake Michigan, and Lightship No. 82, overwhelmed and lost with her crew on Lake Erie."

Lightship 82, a government vessel 80 feet in length with a beam of 21 feet and commanded by Capt. Hugh M. Williams, was Lake Erie's watchdog of the rocky shallows off Point Abino on the Canadian side of the take. She also kept an eye on the lighted buoy marking Waverly Shoals.

That November storm of the 9th and 10th took her down. The only item that documented her terrible death was a piece of wood — perhaps a piece of cabin paneling —with this message: "Good-by, Nellie, the ship is breaking up fast. Williams."

(Continued from Page 29)

### Log of the SS. Maitland-WLE-Jones

from it I stood by until daylight but unable to locate the boat letter follows. Sig. T Heyman Master.

8:55 AM WAM (Buffalo) MSG from to Capt Str Maitland.

Please send one hundred word story of rescue.

9:15 AM WAM SVC from. WLE; Abstract reply as reply paid as Buffalo Times will pay us for tolls. Sig.

9:30 AM WAM Reply paid MSG to Buffalo Times Buffalo.
One AM sighted distressed vessel six miles north
Erie gale heavy sea hauled down and maneuvered
to pick up crew in two life boats vessel sank one
thousand feet away after a few attempts got life
boats along side and all one boat rescued and would
have entire crew but owing to panic other boat swept
away in darkness waited daylight but no success
name of vessel Str Howard S Gerken 1422 tons
loaded sand Erie to Buffalo Captain J B Gamble
Missing Geo McMinn Mate Richard Freeman watchman Herman Wageman fireman Wm Logan engineer
Sig. Capt Heyman

9:40 AM Maitland docked Ashtabula.



Member Lloyd L. Arnold - 727-SGP spent 3-seasons on the SS William C. Atwater - WPB/WDDL. This picture taken in Dec. 1927 at the Soo shows the Atwater (under star) in company with 60 other ships ice-bound due to 12 ships in the St. Mary's River blocked by ice also. Lloyd reports they were ice-bound 10 days before they could move. Meanwhile ships 'down-river' had run low on food. They would call the Atwater and Arnold would go up town and fill grocery orders with local people, then would arrange to have it sent by sled and horses to ice-bound ships 'down-stread'. The Atwater was launched in 1925. One of the first ships on the lakes with DF and fathometer She was 605' long and 80" beam. Loaded with grain she made about 5 knots per hour. Member Arnold spent 3 seasons on the Atwater and sailed the 'Lakes' nearly ten years.

(Continued from Page 7)

## THE S.S. EASTLAND GATASTROPHE

Dr. Dibbell recalls he had been aboard the Eastland many times in heavy seas, and the boat appeared to be seaworthy. Before that fateful July day, he said, he had served as the ship's radio operator on from three to five round trips weekly between Chicago and Benton Harbor - St. Joseph, Mich., a distance of about 60 miles.

#### HE NOTICED LIST

"I was shaving in my quarters on the hurricane deck," Dr. Dibbell said, "when I felt a list. With my face half lathered I stepped to the deck. For the next several hours I was a part of one of the worst disasters in maritime history."

There have been several theories on what caused the Eastland to turn on its side. After the tragedy the Harbormaster described the boat as "cranky" and said it carried too many passengers.

Dr. Dibbell is satisfied that a sudden rush of passengers to one side of the craft caused it to capsize. He said that just as the Eastland was about to pull away from the dock, a speed boat came up the Chicago River at about 40 miles an hour. Practically everyone on the top deck ran to the river side of the boat. It was then that the tragedy happened.

The twin screws were turning slowly; the forward line had been cast; the tug, "Kenosha," had its line to the top of the ship and was preparing to guide the Eastland through the Clark Street Bridge.

Four or five hundred persons were on the intermediate deck dancing to the strains of an orchestra.

Then suddenly the river was filled with men, women and children, shouting frantically for help.

First thought of members of the crew, when the immensity of the situation was analyzed was the fear that the boilers would blow up which would mean an ever greater loss of life.

That's when a crew member, who Dr. Dibbell remembers only as "Slim," came to the rescue. He released valves, greatly minimizing the possibility of explosions.

#### HUNDREDS WERE HEROES

But Slim was only one of hundreds of heroes who came to the aid of the victims of the tragedy that July morning. Members of the crew pulled men and women to safety through the 12-inch portholes. Life preservers were thrown into the water from other boats.

Workmen along the docks tossed boards, crates and other objects that would float into the water to the outstretched waiting arms of those flailing in the water.

Crew members and bystanders jumped into the water and led men, women and children safely ashore.

While doctors, nurses and ambulances were awaited, artificial respiration was administered to those who still showed signs of life.

Welding equipment was secured to cut two large holes through the metal sides of the boat in an effort to save more of those trapped on the intermediate deck. However, this operation required several hours and, in the meantime, many passengers died.

Following the tragedy, the townspeople of Chicago were incensed and many of them blamed the crew for the accident. Because of this feeling crew members were cautioned not to admit they were on the Eastland for fear of retaliation.

Dr. Dibbell's duties as radio operator consisted of keeping the owner advised of the position of the ship at all times. He transmitted messages for passengers, as well as the captain's report. He was also responsible for maintenance of equipment. Equipment used was of the spark type. All transmissions were in code. There was no voice transmission half a century ago.

While a pupil in high school Dr. Dibbell worked on land radio stations in Duluth back in 1909. Later he was transferred to stations aboard ship and after the family moved to Chicago he was assigned to the Eastland.

S TANDING out prominently amid the awful scenes which marked the loss of lives following the capsizing of the steamship Eastland at her dock in Chicago on July 24th, are the deeds of several men who unselfishly put thoughts of their own safety behind them and aided others to escape death. Among these is Marconi Operator C. M. Dibbell. From the minute the ill-starred craft began to list until she had careened over on her side, he was active in striving to avert the disaster and save lives, remaining on the vessel up to the time the Chicago authorities took charge of the rescue work and ordered him to go ashore.

The number of known dead is estimated at 839. One hundred and fortytwo persons are missing.

The Eastland, which had been chartered to carry employees of the Western Electric Company on a picnic to Michigan City, Indiana, was crowded with passengers said to number approximately 2,000 persons as she lay in the Chicago River ready to steam away. Twenty minutes before she turned over she had a considerable list to port and Dibbell walked to the starboard side of the vessel and looked over the rail on to the dock. A watchman there should that it would be advisable to gather the passengers on the starboard side. Dibbell then attempted to move the members of the crowd to port. Few seemed to realize the danger they were in, however, and showed no inclination to follow his directions.

In the meantime the Eastland kept list-



Above, the Eastland as she appeared while engaged in passenger carrying service.

Below, at her last resting place in the Chicago River

ing. Gradually her deck took on a sharp angle and the more cautious among the passengers took up positions near the starboard rail. They did not equal in numbers those who were on the port side, however, and suddenly the vessel careened sharply and turned over. Dibbel clung to the starboard rail and helped those who were not able to aid themselves to clamber on to the side of the vessel. Thus many of the survivors made their way with little difficulty to the tugs and launches which had come along-side the overturned eraft.

#### REPUBLISHED FROM MARCONIGRAPH AUG. 1915



#### Buffalo's main lighthouse

THE skippers of the Great Lakes who pilot their freighters into Buffalo's north main harbor entrance are very familiar with an unusual-looking building 20 feet inside the breakwall. But skippers of foreign ships who cautiously approach the swift currents of the Niagara River consult their Great Lakes Light List for identification. There the structure is described as a "white square tower on a corner of a white square building." It is "The Light," or Buffalo's main lighthouse.

Buffalo Light was reconstructed in 1914, 42 years after its establishment.

Buffalo Light was reconstructed in 1914, 42 years after its establishment. It is set on its own solid base, within the harbor, just opposite the Coast Guard Base; its white masonry gleams in the sun on clear cloudless days. It has the appearance of an ordinary house whose owner wished to be isolated from his neighbors. And for the men who live there, it seems just that, for it is a quiet place.

The only verbal connection is one direct telephone communication with the Coast Guard Base. The spotlessness of "The Light" testifies to the quiet occupation of the on-duty man. The men's time is divided into eight-hour shifts, with two days ashore each week.

The off-duty man occupies his time with reading, listening to the radio, or trying out his rod and line on the end of the three odd miles of breakwall. "The Light" could be a good place to get those letters written home, but home is just a quarter of a mile across the harbor entrance for the men stationed at this light.

When visibility across Lake Erie becomes poor, the on-duty man climbs three flights of winding stairs and an iron ladder to a point 65 feet above water level to check a flashing green light on a buoy on Waverly Shoal, five miles away. If this cannot be seen, a radio beacon on frequency 302 kilocycles in the form of four dashes is transmitted, and mournful "Moo," the foghorn, or more technically the diaphone, is started up. This is controlled electrically and functions on a compressed air blast of two seconds duration with an 18-second silent period. Previous to 1912, when this system came into force, a steam whistle was used. The latter was installed around 1860. The foghorn should be heard 17 miles away, but records of 25 miles have been noted.

At night time a \$65,000 two-ton French chandelier is lowered onto its mercury bearings and a 500-watt bulb emits one million candlepower of light. This white light flashes every 7.5 seconds and can be seen for 16 miles. The whole show is self-contained. The electrical supply comes via a cable

The whole show is self-contained. The electrical supply comes via a cable to a transformer in the cellar. In the event of a failure, a standby engine in a nice white tiled room takes over. On the second floor are the dining room, the pantry, kitchen and bedroom.

The Great Lakes Light List does not tell the freighter skippers all this information, but it does give the necessary data to help them enter Buffalo's north main harbor entrance. On brilliant sunny days, when navigation aids may not be so important, "Buffalo Light" is just a peculiar building.—

Gordon S. Smith.

= 32)





Famous Great Lake's Landmark on Mackinac Island

### CDR. E.M. TELLEFSON 2031-Sr.SGP

## Islanders Bid Sad Farewell to Beloved Friend, Tellefson

In 1907, Mr. Tellefson, then a young naval officer, was sent along with other navy personnel, to set up wireless stations along the Great Lakes. It was at this time that he first saw Silver Birches on the East Shore falling in love with the tranquility and peacefulness of Mackinac. He later purchased the property which was the Telletson home for many years.

In 1913 he was stationed on the Island as a radio telegraph operator. Following World War I, Chief Tellefson was placed in charge of the Naval Station at Fort Holmes, a post he held until retirement.

In 1921, Martha Eloise Walker and her older sister, Mary, from Nashville, Tennessee, were stu-dents at Western Michigan University both working as waitresses during the summer months at the famous Island House Hotel then owned by the late Mrs. Van Allen Webster. Martha made the acquaintance of an elderly couple who were guests of the hotel at the time and who loved to walk through the wooded trails of our beautiful Mackinac. On one such hike, they met Chief Tellefson, the ng and handsome naval officer at Fort Holmes. They invited Martha to join them and it was then that she was introduced to her future husband.

The Tellefsons' romance, like many others, was truly a Mackinac one. The young couple fell in love and were later married in Miami, Florida. Their first home was at Silver Birches moving later to the former Gott Cottage, their present dwelling.

The Tellefsons made Mackinac their residence throughout the years. Commander Tellefson, as he was more commonly known by us all, was radio operator on the Arnold Dock for years and years. He loved children and all of us little kids growing up on our Island gathered around him daily just to listen to the sound of his morse

He was a kind congenial person always enjoying the many friends he made and visiting with the thousands of tourists who came each summer regularly to the Arnold dock.

The Tellefson home at Pte. Aux Pins on the most northerly shore of our Island in a magnificent rustic setting surrounded by the Island's e trees, was t dear to Commander E. M. Tellefson's heart. It was here on Friday, June 8, that our beloved friend at the age of 91 passed into the next world leaving behind a devoted family and a host of friends.

His hobbies were many. He built boats, worked diligently around his home beautifying the area, rode his bicycle daily to town, making it a point to be on hand in front of his cottage to greet and guide the tourists who passed each day biking the nine

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Photo by W.T. Rabe

Island. He visited with them, invited them into his home for tea, giving each and everyone the true history of Mackinac and its meaning.

To this reporter, Mr. Tellefson was a very special person. His

He was an outstanding gentleman on Mackinac whose presence will be missed by many.

friendly handshake and warm personality touched the hearts of many. For years members of our family would bike around the east shore to Dwightwood Springs. leaving our vehicles behind as we climbed the rustic stairs to our parents souvenir stand at Arch Rock. Invariably each night, tired from our daily work, we would be greeted with a friendly note carefully placed in the basket of our bicvcles: "Hi, guess who?

Tuesday afternoon, June 12, at p.m., services were held for Mr. Tellefson at the Little Stone Church with the Reverend Erwin Britton officiating.

Pallbearers were all his dear friends, James J. Bogan, Alan F. Sawyer, Patrick W. Chambers, Robert Hughey, Dennis Brodeur and John Croghan, Sr. He was laid to rest beneath the towering pines on the hillside in the Protestant Cemetery near the graves of his many friends from the British Landing area. May he rest in

Mr. Tellefson is survived by his devoted wife Martha and daughter Lynn of the Island and son, Tom, of California.

Deepest sympathy is extended to the family from all Island

Island's eastern shore. After

World War II, the wireless radio

became obsolete. From the Silver

Birch Lodge they moved to their

present home at Pointe aux Pins.

honorary member of the Chicago

Yacht Club, a founder of the

Mackinac Island Yacht Club, a life

member of the Society of Wireless

Pioneers, Retired Officers Associ-

ation, the Veterans of World War

I and the Marine Historical Society

Commander Tellefson was an



TOP PICTURE

Taken by "Ted" Phelps - Director of the Inland Seas Chapter of SONP on one of his trips to Mackinaw in 1919 as R/O on the SS South American-WGCW. "Telly" was dock-side to see "Ted" and his ship off.

Station "WHQ" on Mackinaw Island - owned and operated by E.M. Tellefson for many years. Taken by Member Irl V. Beall in 1914 on a visit to the Isl.

BOTTOM PICTURE

Taken by SOUP Member Stanley F. Pancher 807-V. who sponsored "Telly" for membership in the Society. Picture taken from aboard his ship in the harbor at Mackinac - 1932.

## E.M. Tellefson, 91, Pioneer Wireless Operator, Was Island Resident 62 Years

By Merie Goldman

Commander E. M. Tellefson returned to Mackinac Island for the last time Thursday, June 7.

The 91-year-old retired naval officer had looked drawn and tired when he left the hospital in Petoskey for the ferry but his blue eyes brightened when the Island came into view, and he kissed the hand of his daughter, Lynne, in gratitude for bringing him home. As they neared the harbor, the man who was arriving for his 62nd summer on Mackinac Island waved hello to the people on the

Commander Tellefson died at about noon, Friday, June 8, at his log cabin home at Pointe aux Pins on the east side of Mackinac Island.

Funeral services for Commander Tellefson were held at 1 o'clock on June 12 at the Little Stone Church. He was buried that afternoon at the Mackinac Island Cemetery. The Reverend Erwin Britton conducted the service and Ronald N. Smith, a minister at Trinity Episcopal Church and a friend of Commander Tellefson, gave a eulogy. Smith talked about a man of tremendous vitality, great skill and wide-ranging interests who had become a part of the Island's history.

He is survived by his wife, Martha, his son, Tom of Con-cord, California, his daughter, Lynne Marie, of Mackinac Island, and a brother, Clarence, of Dunbar, Wisconsin.

Even in recent years, Commander Tellefson could be seen

riding his bicycle for five miles from Pointe aux Pins to church every Sunday morning. But he was unable to walk since being briefly hospitalized last fall, and he was admitted to Little Traverse Hospital in Petoskey this spring for surgery for a broken hip. He spent the winter in Charlevoix with is wife and daughter.

Commander Tellefson was born in Milwaukee, Wisconsin, October 4, 1892, the son of Norwegian

immigrants who had many sailors in their family. His father was an engineer, and as a young man, Commander Tellefson learned about Marconi's inventions and began to experiment with radio communication, then known as wireless, by building his own equipment.

Commander Tellefson earned his title in service to the United States Navy in both World War I and World War II. During World War I he served as an instructor at the Naval Communications School at Harvard University, then served on ships in the Atlantic for the duration of the war. At the beginning of World II, he was assigned as communications officer to the Chief of Naval Operations in Washington D.C. He subsequently served aboard the S.S. Sangamon in the Pacific theatre, then returned to become commanding officer of the Navy Communications School, Andover, Massachusetts, chief communications officer at the Naval Training Center, Jacksonville, Florida, and at the Naval Flight Testing Station at Pautuxant River, Maryland.

Although Commander Tellefson traveled extensively, first on duty with the Navy and later with his family during winters, he always returned to the Island. He first came to the Island in 1913 while serving as a radio telegraph operator for commercial passenger ships plying the Great Lakes. After World War I, he requested duty as the operator of the U.S. Navy Radio Station then located at Fort Holmes. There is where he met his wife, the former Martha Eloise Walker, a student at Western Michigan University who was working at the Island House for the summer. They married January 21, 1921, in Miami, Florida, and the following year they made the Island their home. Having returned to civilian life, he purchased the Island radio station from the Navy and operated it as a service to ships on the Great

Lakes. The Tellefsons made their

home at Silver Birch Lodge on the





# News Clips - Early Days on the Lakes

Ah . . .

The sweet smell of Riches

## TO STOP DISTRESS SIGNALS

Damaging Evidence in City Court That Clark Company Issued Orders to Interfere With All Messages of Opposition Company.

### FORMER EMPLOYE SAYS MACHINES ARE USED TO DO TRICK

That wireless messages of the United Wireless Company, no matter how important, are deliberately interfered with in an effort to entirely prevent their transmission was the startling evidence brought out in the City Court this morning. Affidavits were produced containing copies of orders sent to Clark Wireless operators. Regular interfering machines, it was charged, areused to stop the messages of the United.

"We wish to impress upon you," read these orders, "that the fight is not to allow the United Wireless to

not to allow the United Wireless to get a single word through."
Evidence was also given by Charles
H. Royal, operator on the Cleveland-Detroit line, "Western States," to the effect that while he was employed by the company at the Buffalo station he had been instructed to interfere with all messages of the opposition com-any

#### Had Predicted Such a Case.

Members of both branches of Con-Members of both brunches of Con-kreas were informed by the Depart-ment of Commerce and Labor, which has jurisdiction over water commerce, that just such a case would arise as has arisen if some law was not pro-vided. Senator Depew of New York and Representative Green of Massachusetta introduced bills covering just such a case as that of the steamer Western States, but the bills failed of becoming law because too many house members had political fences to mend and could not waste any narre time in Washing-

ton making laws.

Senator Depew's bill passed the Senate, and in section four and five, provision was made for such an emergency as has arisen.

#### Depew Bill Passed Senate.

The bill introduced by Representa-

Senator Depew. It got as far as the calendar but was never called up.

There is a law on wireless interference on the oceans; but it is not effective until July 1, 1911. If two companies are competing on the ocean and one takes upon itself the right to interfere with the messages of the other a like situation to that of the steamer "Western States" is liable to befall one of the ocean greyhounds and many of the ocean greyhounds and many lives may be sacrificed.

#### Congress Urged to Act.

Officials of the Department of Com-merce and Labor urged upon Congress the necessity for a law covering inter-ference between rival concerns. Mem-bers of Congress made the excuse that they had not time at the last session to take the matter up and stated that a clause in the revised interstate commerce act covered the question. But it develops now that the clause re-ferred to in the interstate commerce act only has to do with the making of rates and that the wireless telegraph companies are under the same observations and regulations as are the tele-phone and telegraph companies and that the interstate commerce commis-sion is powerless to prosecute for malicious interference on the part of

one company with another concern.

The secretary of Commerce and Labor will urge in his annual report the early enactment of legislation prevent-ing interference within the jurisdiction of the United States.

## SAYS GOODWIN MUST HAVE A PERSONAL CODE

Wireless Operator on the "City of Cleveland" De-clares Clark Operator Sends Messages Which Only the Sender Understands.

R. B. Hugus, wireless operator on the Detroit liner City of Cleveland, sister ship of the Western States which broke a cylinder off Long Point last Wednesday (wireless signals of distress from which it is claimed were interrupted by the Clark wireless operator in Buffalo), offers some caustic criticism of the Clark operator in the following statement to the NEWS: NEWS:

"After reading your very interesting article, I would like to add a few words for the benefit of my friend Mr. Striegel, United Wireless operator at Buffalo, whom Mr. Goodwin brands as a liar, and for the benefit of those who are interested in wireless in general

eral.
"Mr. Charles Ernest Goodwin has seemingly made several statements which he can't substantiate. Does it which he can't substantiate. Does it not seem reasonable that the United Wireless operators themselves would know more about how far their instruments would carry, than would Mr. Goodwin. Yet he makes the statement that our Buffalo office can not work with a ship five miles west of Long Point. I know that it is easily done with my set on the City of Cleveland and know that other United operators on other boats will give the same testimony. same testimony.

#### Malicious Interference.

"He also makes the statement that what Operator Striegel said about the Clark malicious interference was un-true. He makes it even stronger by these words:

a have never interfered maliciously with any wireless station." "Right here I would like to have Mr.

Goodwin state what he means by the

Goodwin state what he means by the word interference.

"I, being a wireless operator, am well enough acquainted with the codes to know that three-fourths of the time when Mr. Goodwin claims to be sending his business that he is neither using the Continental or Morse code, but as I assume Mr. Charles Ernest Goodwin to be a truthful man and man of his word, he must be using a man of his word, he must be using a code which only he can understand, for generally not even the other Clark stations reply to it.

#### Ordinary Message.

"Again, the ordinary message can easily be sent in from five to ten minutes at the most, and then it is necessary to 'listen in' in order to receive acknowledgment of the message from the station receiving same. But Mr. Goodwin's so-called business takes him Goodwin's so-called business takes him hours to get off sometimes without a break even long enough to receive a single word. But since I assume him to be a man of his word the only way I can explain the fact is that he must have some way of receiving his acknowledgments which is as mysterious as his code. as his code.

"Another peculiar characteristic in Goodwin's method of getting off business is that his mysterious mes-sages are sent only when the United Wireless stations are trying to work with the recognized code. And, here again, since Mr. Goodwin is apparently an honorable man and a man of his word. I will assume that the United Wireless spark is a necessary attri-bute to Mr. Goodwin's mysterious method of doing his very legitimate business.

"I am sure that all United operators would be highly honored and pleased with an explanation of Mr. Goodwin's very unusual method of conducting his business. However, as we do not understand his peculiar ways, we are enjoying immensely some of his statements which were printed in your last evening's paper, statements which should be amusing to anyone with an understanding of wireless, but especunderstanding of wireless, but espec-ially so to all United operators."

## COLLINS WIRELESS TELEPHONE

Do you remember the history of the Bell Telephone Stocker. Do you recall how the stock went begging! Colling Wireless Telephone is the culmination of the evolution of communication. Have you the forenight to seize fortune at its young food and be one of the wise heads to purchase Colling Wireless Stock now, when it is passing through the same experience that Bell went through?

The Colling invention is more necessary to humanity than the Bell, more necessary because it is adapted for both land and sea and is more reachable for those of little means. It will reader the service which the world will pay for with princely returns. If there is money in telephoning with wires, and there in, there certainly is more money in telephoning without wires.

## THE COLLINS SYSTEM

Requires no poles, no wires, ne franchises.

#### Atlantic to the Pacific Coast.

All these companies are obliged to pay tribute to this, the Parent Company, in cash, stock and rayalties. This should make the shares of the Parent Co. very valuable.

It is only a question whether you can take a hint or whether you make it a rule to ignore past experiences and wait until Collina stock soars, and then quarrel with yourself for losing the opportunity.

At any rule, as one of common, horse sense, professing to keep up with the times, and claiming to he as keen to seem a great privilege as anyone it is up to you to look into this Collina stock, see what it has done, where it stands, what the demand is, and where it will be a year from now.

#### Call and talk over the Collins Wireless Telephone YOURSELF.

Come to the office of the Undersigned and talk over the tele-phone without wires. Out-of-town readers are requested to write immediately for handsome illustrated book entitled; "THE STORY OF THE WIRELESS TELEPHONE," which will be furnished free, 'Xrite today.

## BUELL & SMITH,

804-805 Mutual Life Building, Buffalo, N. Y.

## TELEPHONE WORK DONE WITHOUT USE OF WIRES

Question of Circuit Made by Water Route Refuted by Collins People in Buffalo.

#### NEW SYSTEM PROVED GOOD

"What we claim for the Collins Wireless Telephone is that it transmits articulate speech without wires between points in communication," said Mr. G. Merritt Davis, representing the Collins company, today. "The details of it our company has demonstrated in Buffalo every day last week, at a public exhibition station at the foot of Ferry street, and now in the Mutual Life Building, also at the Buf-Mutual Life Building, also at the Buffalo Midsummer Exposition.

"Is your system in operation elsewhere?" Mr. Davis was asked.
"Yes, it is installed at the Yukon

Exposition in Seattle, Further than that, at the electrical exposition held in Madison Square Garden in York last fall the Collins wireless telephone had the exclusive privilege and gave demonstrations there during the entire period of the exposition."

"Have you had tests which prove its efficiency for commercial uses over any considerable distance?"

#### Results of Tests.

Yes, our tests have shown these re-N. J., to the Singer Bullding in Newark, York City, a distance of about nine miles, and from the laboratory to Con-gers, N. Y., a distance of 35 miles. Following this, the long distance record was made on July 9th last year between Newark, N. J., and the top of the Land Title Building in Philadelphia, a distance of 81 mile has been fully described in the Scientific American and was witnessed by a large number of scientific experts wine no relation to our company."

"What is the theory by which mes-sages are conveyed by your com-

sages are conveyed by your company?"

"I should reply to that," said Mr. Davis, "that it is the same with our wireless as with every other. In fact, the entire wireless industry is built on the generally accepted theory of what is called the other space, which I need not go into detail but which all solentists understand and that thus far all experiments tend to confirm that theory, though no one has ever seen or measured or can tell the true measure of what is called the ether in all sheence of more explicit knowledge all absence of more explicit knowledge on the subject.

#### Wires Only Grounded.

Wires Only Grounded.

"What is the significance or use of the wires leading from your Ferry street station down into the canal?"

"Many have asked this question and some have drawn unfavorable conclusions from it. In brief the wires are connected with a copper plate and a zinc plate, thus making a ground connection, which might have been made just as well, of course, by merely burying wires in the ground, thus completing the circuit, but Mr. Collins, the inventor of the system, has preferred working this way in his earlier experiments and has continued to do so. There is no communication by water betwen our two stations on opposite rnere is no communication by water betwen our two stations on opposite sides of the canal. In fact, it is much more easy to conduct wireless tele-phone through the air than through the water, although communication by water is made practicable for some distance, especially compositing white to water is made practicable for some distance, especially, connecting ship to ship or ship to lighthouse, and it is rapidly coming into special use. The only point is, we think, our system is a little better than anybody ejse's. In fact, we have a factory in Newark and are supplying wireless telephones and hilpping them to different parts of the world. We regard it as a perfectly well-established industry.

"Exclusion, or selectivity, as it is called, the separating one from another, is arranged by the tuning method so that when connection is established two persons who want to talk to each other in secret may have talk to each other in secret may have instruments attuned to such a pitch an others are not, and in that way secrecy be established. A technical account of it is that it is a matter of varying of oscillations, but the practical man simply wants to know that it is done rather than how it is done."

# **NOT WRONG** IN LAW TO

Department of Commerce and Labor Gives Important De cision in Officially Considering the Predicament of the "Western States" Recently.

#### HAVE URGED NECESSITY OF PROTECTION LAW

THE NEWS BUREAU, WASHINGTON, D. C., Oct. 10. There is no law at present to prevent There is no law at present to prevent a wireless telegraph company from interfering with the messages transmitted by a competing company and rendering the message unintelligible, even when the message is a steamship's distress signal, the "S. O. S.," according to Acting Secretary of Commerce and Labor Benjamin S. Cable.

The steamer Western States, with several hundred passengers aboard.

was made helpless on Sept. 21 by the bursting of a high pressure cylinder and drifted about Lake Eric for several hours. Repeatedly, according to the affidavit of the wireless operator aboard the steamer, the distress sixnai of "S. O. S." was flashed. Each time the interference by the apparatus of a competing line was so strong that the message never reached those for whom it was intended.

LIFE ON THE LAKES "Ooh la la "

## Wireless History was made on The 'Lakes'

Life of a 'Wireless-man' on the Lakes prior to 1912 was NOT a 'bowl of cherries' as clippings from 1910 newspapers of the area record. These papers, yellow with age tell of the intense jealousy between rival companies. The 'jamming' of stations by rivals - many without regard for safety of lives or ships. It was a pretty sordid chapter of history - probably well forgotten. However, you may enjoy this vignette of 'Life on the Lakes' as it was. Do not blame the printer or us for the poor copy. After all, its over 75 years old.

## STR. "WESTERN STATES," DISABLED, SUMMONS AID WITH WIRELESS CALL

### CONNECTING ROD BREAKS AND CYLINDER BLOWS OUT

The breaking of a connecting rod and the blowing off of a cylinder head on the steamer Western States of the Detroit-Cleveland .lavigrtion pany left the big vessel lying helpless about 45 miles east of the southeast shoal at midnight last night. Information was first received by the NEWS office through the United Wireless Company more than an hour shead of regular tele-graph service. The steamer City of Cleveland was called by wireless to the assistance of the other steamer and the passengers on board the Western States were transferred to the other vessel and landed in Buffalo this morning. The Western States returned to Detroit.

On board the Western States when the accident occurred was a party of 250 Michigan bankers on the way to Buffalo and Niagara Falls, a part of the program of entertainment during the Detroit convention of 6 Mich igan Bankers' Associat stopped in Buffalo this n

The captain of the We-States when confronted by the air ative of drifting slowly to Buffal-the party back to Detre third cours of call taking we City of Cleveland to the Western States'

The accident to the Western States' machinery, which was serious enough to cripple the vessel, occurred at about 11.45 o'clock last evening. Within an hour a wireless message had reached the City of Cleveland and the latter had drawn up alongside the Western States. Luckily there was no sea running and it was possible to

transfer the passengers in safety.

South East shoul is in the Point Pelee passage almost directly opposite Toledo, but near the Canadian shore.

First Practical Test of the Sort on Lakes.

It was the first time in the history of the Great Lakes that the wireless

was put to such a practical test.
At 11:01 o'clock last night, Wireless
Operator Carl Hopkins on the City of Cleveland came running to Capt. A J. McKay on the bridge of the palatial lake liner with a message which read: McKay—Cleveland—

Stand by and we will wire you later what to do. F. G. Steward,
Captain—Western States.
Capt. McKay wrote in "reply, "All right," and Hopkins flashed the measage to the Western States.

In the meantime Capt, Steward on the Western States had wire a re-port of the accident to the general manager at Detroit and immediate reply At 11:21 he sent the following mes-age:

McKay-Cleveland-Stop along side of us and take 230 passengers. What accommodations have you for them? This is ordered by general manager. We are about 46 miles east of South-East Shoal.

Steward. The City of Cleveland's captain re-turned the following comforting reply: Steward—Western States—

Have you located and am coming full speed. Am 35 miles away. Have ample accommodations for you all.
McKay.

Capt. McKay sent an urgent mes-Capt. McKay sent an urgent mea-sage to his engineers to do their best and the extra firemen, oliers and boil-or men were turned out of their bunks. The Cleveland is one of the fastest steamers on the lakes and it soon was tearing through the placid water of the mospilit lake under every possible pound of steam. It was little more than an hour when, by the aid of the chart, the two boats were close enough to be spoken and the captains held megaphone conversation. held megaphone conversation,

#### Lashed Broadsides.

The crippled ship and the rescuer were lashed broadsides together and the transfer, which had been arranged in the hour while the Cleveland was in the hour while the Cleveland was coming up to the Western States, was effected. There was no confusion. The water was as "calm as a mill-pond" and a bright moon made the scene as light as day. Over a fenced gang-way the passengers walked from deck to deck and the stewards carried deck to deck and the stewards carried their luggage to their new staterooms. There was no crowding on the Cleve-land, whose capacity of 3500 was not approached. The transfer was comapproached. The transfer was com-pleted and the boats pulled apart in 25 minutes. The Western States turned back in the direction of De-troit under its own steam at low press-

"There was absolutely no excitement on board following the accident,"
said one of the party of bankers from
the convention of Michigan State
Bankers' Association, upon the arrival

of the City of Cleveland in Buffalo. "There were about 225 in our party "There were about 225 in our party and of that number about half had gone to their staterooms. We were told a few minutes after the accident that it would be necessary to transfer the entire party to the City of Cleveland which had already been communicated with by wireless. Accordingly all of our luggage was gathered together and we made ready for the transfer which was made an hour later without incident."

Emery Clark, of the First National Bank of Detroit, retiring president of the association, laughed when he was asked if there had been any excitement on board.

ment on board.

"Why, half of our party didn't know

snything had happened until it was explained to them and they took it all as a splendid joke," said he.
"Of course the accident has delayed us slightly on our trip to Niagarabut it is of little consequence, because we are all having a splendid-time."

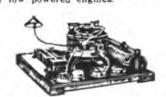
#### Ill Man on Board.

Some excitement was caused while the big steamer was being warped into her landing place at the foot of Washington street by a report that one of the bankers had been taken one of the bankers had been taken suddenly seriously lil following the accident and was to be taken to a hospital as soon as the boat had uccked. It was found upon inquiry, however, that the sick man was one of the passengers on the City of Cleveland when she left Detroit and was being taken to New York city for treatment. He was not of the bankers' party.

The bursting of the cylinder followed the breaking of a bolt in a high-powered engine. The wireless call for help was sent out immediately and the City of Cleveland and the

ly and the City of Cleveland and the Eastern States responded. The former vensel was only a short distance away and started for the disabled boat, the Eastern States being inboat, the Eastern States being in-formed that her aid was not needed. When the City of Cleveland arrived the bankers held a conference and decided not to stay aboard the West-ern States. The two boats were then lashed together and the gang planks set. The sea was calm and the trans-fer was made without accident. It was after inidnight when the City of Cleveland left the stranded vessel Cleveland left the

The Western States turned her nose toward Detroit and in attempting to reach that port traveled by means of her low powered engines.



## STR. WESTERN STATES DISABLED, CALLS AID

Wireless Operator in Court on Charge of interfering.

#### BROKE UP MESSAGE?

Ernest E. Goodwin, a wireless operator employed by the Continental Wireless Telegraph Company, was before Judge Nash in City Court yesterday, charged with a violation of the penal code. His hearing was adjourned to Monday, October 2d. A warrant is also out for the arrest of Nelson Holt, an operator employed by the same company, on a similar charge.

pany, on a similar charge. Edward Newton of Chicago, general superintendent of the United Wireless Company, alleges that the two operators wilfully and maliciously prevented and delayed the transmission of a message from the steamship Western States on September 21st when that boat was disabled on Lake Eric off Long Point owing to the breaking of a shaft and cylinder head.

According to the affidavit. Charles Royal, the operator aboard the Western

Sta es, unsuccessfully tried from 4.10 a.m. until 9.40 a.m. to reach either the Erie or Buffalo stations. Royal says that the moment he began to send out a message asking for assistance, the operator at Clark's station, Buffalo, be-

Royal was formerly an operator for the Clark company at Detroit and later at Buffalo. He has made affidavit that the Clark company at Detroit and later at Buffalo. He has made affidavit that he was given oral instructions at Detroit by W. N. McWade, superintendent of the Clark company, and Thomas E. Clark, general manager, to interfere with the United Wircless stations there, and had written instructions from Samuel Brinkman, manager of the Detroit station, advising Clark operators in this respect. operators in this respect.

The maximum penalty for Goodwin's alleged offence is four years' imprison-

If the wireless folks are to fight in the air they should select their mono-planes or biplanes and have it out where they won't bother people who don't understand what they are at and what their complaints really

#### CUT IN ON THE AIR.

Wireless Operator is accused of intercepting a Rival's Messages.

Ernest E. Goodwin, a wireless tele-graph operator of No. 89 West Eagle street, was arrested last night on a warrant charging him with violating the pensi law in regard to interfer-ing with telegraphic communications.

The complainant is Edward C. New-ton, who is the local representative of one company which has a wireless sta-tion here. He alleges that thoodwin has set up a station on the beach at the foot of South Michigan street and is daily interfering with the work of the company.

Recently, Newton alleges, a steam-boat was in grave danger off Long Point, in Lake Erie, and was sending out flashes of its plight, which were intercepted and made uncless by Good-

#### WIRELESS OPERATOR UP FOR INTERCEPTING MESSAGES

Erneat E. Goodwin, a wireless tele-graph operator at the Clark Wireless Telegraph Company's station on the beach, was arraigned in City Court yesterday morning charged with inter-fering with messages sent to the United fering with messages sent to the United Wireless Telegraph Company from the steamer Western States when she was in distress off Long Point on Septem-ber 20th. Judge Nash put the case over until October 3rd for trial. A warrant is out for the arrest of Nelson Holt, an operator for the same

#### WIRELESS INTERFERENCE TAKEN TO SUPREME COURT

Justice Hooker is to decide the question whether the law prohibiting the interference with the sending of telegraph and telegraph messages can be graph and telephone messages can be applied to wireless telegraphy. Arguments were heard by him yesterday afternoon on this point, following a writ of habaes corpus which brought about the release from Juli of Ernest C. E. Goodwin, an operator of the Clark Wireless Telegraph-Telephone Company, who was arrested charged with interfering with a distress signal from the steamer Western States when it was in trouble on Lake Eric. The proceeding in City Court, in which it L sought to punish Goodwin and another operator for the same company, Nelson Holt, has been held pending the announcement of the decision of Justice Hooker.

## PERE MARQUETTE LAKE DISASTER OFF CHEBOYGAN

Conflicting Reports by Wireless Tell of Sinking of Boat With All or Part of Crew in Lake Michigan.

#### (By Associated Press.)

LUDINGTON, Mich. Sept. 9.—One of the worst marine disasters in the history of Lake Michigan navigation occurred early today when car ferry Pere Marquette No. 18, flagship of a filet of six steel car ferries owned and operated by the Pere Marquette Rall'ad Company, sank to the bottom of Lake Michigan, twenty miles off Poil Washington, Wis., with an estimated loss of 20 lives. The boat was valued at \$400,000, and the cargo, which included 29 loaded cars, at \$100,000 to \$150,000. The total loss will exceed half a million dollars, fully insured.

"Car ferry No. 18 sinking—help!" was the C. Q. D. wireless message that brought the first news of the disaster to this city about 5 A. M today. The lost car ferry carried a crew of 50 men, and had on board two women passengers said to be from Saginaw.

LUDINGTON, Mich., Sept. 9.—W. L. Mercereau, superintendent of the car ferry line, has received a "reless stating that only 30 of 50 men on board Car Ferry No. 18 had been paved. The message came from a passing steamer, which was in communication with No. 17 and is accepted at Pere Marqette marine headquarters as reliable. Twenty are said to be lest, including all the officers.

MILWAUKEE, Wis., Sept. 9.—Thirty-nine members of the crew of the Pere Marquette car ferry No. 18 were lost and three saved, when the car ferry sank in mid-lake about 30 miles off Sheboygan today, according to

All the members of the crew hailed from Ludington.

The car ferry left Ludington at 11:40 last night, after a thorough inapection before entering the freight carrying traffic across the lake. The
first word of the ferry being in distress was received in a wireless message from the captain, asking for assistance from car ferry No. 17 and for the dispatch of tugs.

First reports received also indicated that the crew had been saved, but a later dispatch at 10:30 brought the news that only three out of a crew of 42 had been saved. There is absolutely nothing known as to the cause of the sinking.

DETROIT. Mich., Sept. 9.—At Pere Marquette railroad headquarters in this city it is said that car ferry No. 18 had a crew of 32 to 35 men and that word from Ludington is that all were rescued by car ferry No. 16. The latter left Ludington at 5 A. M. in response to No. 18's wireless signal of distress and reached the same of the wreck about 7 o'clock.

## HAZEL DENIES INJUNCTION WIRELESS SUIT

JUDGE FINDS ALL COMPANIES INTERFERED WITH MESSAGES -UNITED COMPANY MAY AP-PLY AGAIN IF MESSAGES ARE INTERRUPTED.

The suit of the United Wireless Telegraph Company to obtain an injunction restraining the Continental Wireless Telegraph & Telephone Company and Clark Wireless Telegraph & Telephone Company from allegred interference with messages on the Ureat Lance, was upment toney by Judge John R. Hazel in United States Circuit Court. The complainant company, however, holds the right to again start proceedings at the beginning of the season if the defendants attempt to hamper the work of the United Wireless concern. Francis X. Butler, New York City, appeared for the complainant, and the defendant, Clark Company was represented by Eugene L. Falke of this city.

Judge Hazel stated that insamuch as from the evidence offered by each side each company had interfered with the business of the other, his ruiling seemed to be the best under the

side each company had interfered with the business of the other, his rulling seemed to be the best under the circumstances.

The proceedings were begun last September and today was the time set for the defense to file answers. The United Wireless Company, which has a station at one of the lecal newspaper offices charged that during 1810, the a station at one of the weat newspaper offices charged that during 1910, the Continental and Clark companies had maliciously interfered with the trans-mission of its wireless messages. Affidavits were presented by each aide to the effect that the other concern had tried to injure its business.

atory of the Clark Wireless Telegraph Company at 195 Cass avenue and start an interference machine. This machine, I was told, was designed to work automatically and to prevent the United Wireless from getting through any messages. This machine was so agranged by having points on the shaft of a motor that as the motor would turn it would close the circuit and make dashes.

My instructions were to interfere with the United from the regular sta-tion up until 3 A. M. each morning. I then went to the laboratory and started the interference machine, that ran until all their boats had docked. I carried out these instructions during the entire time that I was working for the Clark Company in Detroit. The same condition prevails at Buffalo, except that in Buffalo the design of the interference machine is changed and a salt water recental is used in the place of a break by motor. The rheostat is designed as follows: In a vessel of salt water two pieces of steel are piaced, being two connections of a circuit. One piece of steel is placed down in the water, the other just touching it. When the current is turned on, bubbles form around the piece of steel near the top, and when the bubbles break contact. carried out these instructions during and when the bubbles break contact is made, and a dash is made through the wireless instrument until another bubble is formed. This is a continuous performance."

#### 'C. Q. D.' Message Might Have Saved Lives But For Wireless Rivalry

"If the Bope wireless operator had been kind enough to answer me when been kind enough to answer me when I picked up his call, the lives of those two men might have been saved," said Operator Bert Wendier. "I could have called up Capt. Westcott at the local marine reporting office and had some of the tugs that are stationed at Amherstburg and Ear Point on the spot in two hours."

The wireless message which told of the burning of the Clarion was first picked out of the air by Bert E. Wend-ler, night operator at the Detroit sta-tion of the Clark Wireless, which operates the Detroit Journal service, pu the D. & C. dock at the foot of Wayne street. Wendler was "in circuit" at \$18 p. m., when he heard the famous "C. Q. D." call. He answered the call and learned that the steamer calling was the Bope, a United Wireless boat. But when he signed "C. W.," signifying the Detroit Clark station, the other operator refused to talk.



### The Multi-Lingual Dictionary



#### DICTIONARY OF TECHNICAL TERMS

The Multi-Lingual Dictionary			02 12011		
	E NGLISH.	FRENCH.	ITALIAN.	SPANISH.	GERMAN.
	Accumulator batteries .	Batterie d'accumulateurs	Batterie di accumulatori.	Acumuladores, Baterias	Accumulatoren Batterie
	Aerial, balancing	Antenne de compensation	Antenna di compen- sazione	Antena compensadora .	Wage Antenne Gerichtete Antenne
	Aerial, directional . Aerial, direction-finder	Antenne dirigée Antenne réception diri-	Antenna dirigibile . Antenna, rivelatrice della direzione	Antena dirigida	Antenne, zur Entdeckung der Richtung Horizontaler Luftleiter
	Aerial, horizontal	Antenne horizontale . Antenne de réception .	Antenna orizzontale . Antenna di ricezione .	Antena horizontal Antena de recepcion .	Horizontaler Luftleiter Empfangsdraht
	Aerial, receiving Aerial, transmitting	Antenne d'émission	Antenna di trasmissione.	Antena de transmission .	Geberdraht (Sendeluft- leiter)
	Acrial, umbrella	Antenne en parapluie .	Antenna a forma di ombrella	Antena de paragua en forma	Schirmnetz
	Ammeter, a.c.	Ampèremètre pour cou- rant atternatif	Amperometro per cor- rente alternata	Amperimetro, c.a	Wechselstromampere- meter
	Ammeter, d.c	Ampèremètre pour cou- rant continu	Amperometro per cor- rente continua	Amperimetro, c.c.	Gleichstromamperemeter
DO YOU UNDERSTAND ?"	Ammeter, hotwire	Ampèremètre à fil chaud. Ampèremètre d'Arsonvai	Amperometro a filo caldo Amperometro a bobina	Amperimetro térmico . Amperimetro de bobina	Hitzdrahtamperemeter D'Arsonvalscher Ampere-
"CAN YOU SPEAK ENGLISH ? "	Angle divider	Diviseur d'angle	mobile Divisore di angoli	movil Divisor de Angulo	WinkelTrennungs-Apparat
Oni 100 di Enit Endelon .	Antehna. Antenna, horizontal ex-	Antenne	Antenna Fili orizzontali	Antena, Prolongación	Luftleiter (Antenne) Horizontale Verlangerungs- drabte des Luftleiters
Konnen Sie Duetsch sprechen ?	tension of Antenna, T-shaped	l'antenne Antenne en T	Antenna a forma di T.	Antena en forma de T.	T. formige Antenne
Verstehen Sie Nicht [No] Gr.	Antenna, extended T-	Antenne en T. à branches horizontales prolongées	Antenna a forma di T. allungata	Antena en forma de T. prolongada	Verlängerte T. Luftleiter
Paria Lie Inglese ?	Apparatus, receiving Apparatus, transmitting	Appareils de réception . Appareils de transmission	allungata Apparecchi di ricezione . Apparecchi di trasmis- sione	Aparatos receptores . Aparatos transmisores .	Empfanger Sender
Capare Vietata It.	Arrester, earth terminal .	Eclateur de mise à terre .	Morsetto par presa di	Estallador de toma de	Unterbrochener Erdan-
Parle Anglais ?  Non Comprendre Fr.	Arrester, lightning	Parafoudre	Dispositivo scaricafulmine Perturbazioni atmosferiche	Pararrayos	schlusz Blitzschutz Luftstoerungen
Que Hable Ingles	Atmospherics	Perturbations atmosphér- iques	Perturbation atmosfericae	Perturbaciones Atmos- féricas	Luttstoerungen
No Comprender Sp.		Batterie de bouteilles de	Batteria di bottiglie di	Bateria de Botellas de	Batterie Leydener Flas-
	Battery of Leyden jars .  Blown, electric motor .	Leyde Soufferie à moteur élec-		, Leyden	chen
During the early days of Wireless at the turn of the	Busbars, main-	trique Barres omnibus princi-	Ventural ad aziona- mento elettrico	Motor soplador or Venti- lador eléctrico	Geblaese . mit Elektrischen Antrieb
entury, many new words were coined which became	Building, station	pales	Barre collettrici principali Fabbricato della stazione	Barras colectoras princi-	Haupt Sammelschienen
he terminology or lexicon of the new art. Transla-		Bătiment du poste radio- télégraphique	36. Mey 1994	Edificio de la estación .	Stationhaus
ion of these words were not readily available in dic-	Busser, practice	Vibrateur d'apprentissage	Vibratore Cicala per la pratica della ricezione a udito	Zumbador	Ubungssummer
ionary form for wireless men visiting foreign ports.  arly equipment frequently gave trouble due to the			specialists a differ		
rude workmanship and when repairs or supplies were	Capacity Cart, radiotelegraph	Capacité Voiture radiotélégraph-	Capacità Carro radiotelegrafico	Capacidad	Aufnahmefähigkeit Funkenkarren
eeded, it was often hard to make their 'wants'	Change of connections for	ique Commutation pour la	Commutazione per rice-	Cambio de conexiones	Umschaltung auf Emp-
nown.	receiving Change of connections for	réception Commutation pour la	zione Commutazione per tras-	para la recepción Cambio de conexiones	fangen Umschaltung auf Senden
his problem was recognized by the Marconi Company	transmitting Chokes, air core protecting	Bobine de réactance sans	missione	para la transmisión	Impedanzepulen fur hohe
o it set its staff to work up a "Multi-Lingual" Dic-		noyau de fer	Bobine di protezione a nucleo d'aria	protectoras, de núcleo de aire	Frequent nat Luttkern
ionary as a translation tool that all could use as the	Choking coll . Circuit breaker and closer.	Bobine d'impédance . Disjoncteur et conjoncteur	Rocchetto d'autoinduzione Interruttore	Bobina de reactancia . Interruptor con apertura	Drosselspule Strom - unterbrecher und
ccasion required.	Circuit, closed oscillating .	circuit oscillant fermé	Circuito oscillante chiuso.	y cierre automáticos Circuito oscilante cerrado	Strom-schliesser Geschlossener Erregerkreis
he "Lingual Dictionary" was included in several issues	Circuit, intermediate Circuit, open radiating	Circuit intermédiaire . Circuit radiant ouvert .	Circuito intermedio Circuito radiante aperto	Circuito intermedio . Circuito radiador abierto	Zwischenkreis Offener Strahlungskreis
f the" Year Book of Wireless Telegraphy and Tele-	Circuit, oscillatory .	Circuit oscillatoire	Ricevitore a coherer .	Cohesor	Schwingungskreis Fritterempfanger
hony". It has not been updated since then but there re some who might find it a historical bit of memor-	Coil, syntonising	Inductance de syntonisa- tion	Rocchetto di sintonizza- zione	Bobina de sintonización .	Abstimmspule
bilia and nostalgia of more than passing interest, that	Commutator (of Dynamo)	Collecteur	Commutatore	Conmutador	Stromwender Stromwender
hould be recorded to point out some of the difficulties	Condenser, adjustable	Condensateur réglable	Condensators regolabile .	Condensadores	Kondensatoren Variabler Kondensator
hat existed in the early pioneer days.	Condenser, adjustable disc	Condensateur à disque	Condensatore a disco re- golabile	Condensador de disco, variable	Drehkondensator
One instance comes to mind was back in 1919 when I	Condenser, aerial tuning .	Condensateur de syntoni- sation d'antenne	Condensatore per la sin- tonizzazione dell' an-	Condensador de sintoni- zación de la antena	Kondensator zur Luft- leiterabstimmung
was enroute India on the SS Santa Cruz/WBD. Leaving	Condenser, air	Condensateur à air .	Condensatore ad aria .	Condensador de dialéc-	Luftkondensator
Manila our emergency transmitter [ 10" open gap] had	Condenser, calibration	Condensateur étalon ,	Condensatore per tara- ture	Condensador para cali-	Eichungskondensator
the coil burn out. On reaching the French port of Saigon I went ashore to try and buy some needed wire	Condenser, circuit	Circuit du condensateur. Condensateur du circuit	Circuito del condensatore Condensatore per il cir-	Condensador, Circuito de Condensador del circuito	Kondensatorkreis
to rewind the secondary which I found giving the troub.	circuit	intermediaire	cuito intermedio	intermedio	Kondensator im Zwischen- kreis
out had no success in 'getting through' as the French	Condenser, secondary cir-	Condensateur du circuit secondaire	Condensatore per il cir- cuito secondario	Condensador del circuito secundario	Kondensator im Secundār- kreis
representative didn't understand what a "Spark-Gap" wa	Condenser, short wave	Condensateur de raccour- cissement	Condensatore per onda corta	Condensador de enda	Verkurzungskondensator
If I had explained it was an "Eclateur a etincelle",	Condenser-system	Système de condensateur	Sistema di condensatori .	Sistema de Condensadores	Kondensatorsystem
probably could have solved the problem of making my wants known. Other hypothetical circumstances	Condensers, test-tube	Condensateurs à tube	Condensatori tubolari .	Tubo para erisayo de condensadores	Kondensator Prüfröhre
come to mind, for example:	Condenser, twin-coupled	Condensateur jumelé .	Condensatore a doppio accoppiamento Condensatori variabili .	Condeusador de doble acoplamiento	Kondensator, doppelt geschaltete
Herr Heintz Sprockman of the SS Elbe was having	Converter	Condensateurs réglables , Commutatrice	Convertitore	Condensadores variables.	Variablerkondensatoren Drehumformer
trouble with his "Empfanger" shortly after leaving Ham	Continuous wave receiver,	Onde non amortie . Recepteur pur ondes non- amorties	Ricevitore d' onde non smorzate	Onda continua Receptor para onda continua	Kontinuierlische Welle Empfanger fuer kontinu- ierlische Welle
ourg for Southampton. He was unable to fix it so when he arrived at Southampton he went to the radio	Coupling Couplings, flexible and in-	Couplage Manchons d'accouplement	Accoppiamento	Acoplamiento	Kopplung Biegsame und isolierende
station and tried to tell them about the tempermental	sulating Current, alternating	souples et isolants Courant alternatif	isolanti Corrente alternata	aisladores Corriente alterna	Verbindungen Wechselstrom
'Empfanger" on the Elba. The sharp British Op on	Current, direct	Courant continu	Corrente continua . Corrente alternata del	Corriente continua Corriente alterna	Gleichstrom Primar Wechselstrom
luty sensed that he was talking about the ship's	ing Cut-out, automatic	Interrupteur automatique	circuito primario Interruttore automatico .	primaria Interruptor automático .	Sells-tunterbrecher
eceiver as the culprit but how was he to know what	Cymometers	Cymomètres	Cimometri	Cimómetro	Wellenmesser
"Empfanger" was ?	Damper	Sourdine	Sordina	Amortiguador	Dämpler
hen there was Gerald Welch on the HMS Sir Sidney.	Damping, high Decremeter	Amortissement élevé . Décrémètre .	Forte smorzamento Decrimetro	Amortiguamiento, Gran Decrémetro	Grosse Dampfung Dekremeter (Dampfungs
After leaving Plymouth for Wismor his condensers	Detector, crystal	Détecteur à cristal .	Rivelatore di onde a	Detector de cristal .	messer) Krystalldetektor
olew. How was he to know that the Germans called	Detector, balanced crystal	Détecteur à cristal	Rivelatore a cristalli	Detector de cristal com-	Wellenanzeiger, bilan-
ondensers Kondensatorens ?? [ Ach Himmel ] And	Detector, Fleming valve .	Récepteur à valve d'oscil-	Rivelatore di onde con	pensador Detector de Válvula,	Prof. Fleming's Valve-
o it went .	Detector, magnetic	lation "Fleming" Détecteur magnétique	Rivelatore di onde mag-	Fleming Detector magnético .	Empfänger Marconi-Magnetdetektor
There were many 'nuggets' of information in these	Dielectric strength	Rigidité diélectrique . Elcateur asynchrone .	Right, bref trica	Resistencia dieléctrica , Descargador asinerono .	Dielektrische Festigkeit Scheibenfunkenstrecke,
Year-Books. The first we received was the 1913	Discharger, asynchronous Discharger, disc, high-	Eclateur à disque à	Scaricatore asinerono Scaricatore a disco ad	Descargador asinerono .  Descargador de disco de	Scheibenfunkenstrecke, asynchror Schnell rotierende Schei
edition priced at 2/6 net. It was donated to the Soc-	speed Discharger, disc, smooth .	grande-vitesse Eclateur à disque uni	alta velocitá  Scaricatore a disco a con-	gran velocidad  Estallador de disco liso	benfunkenstrecke Rotierende Scheibenfut-
ety by Ed. G. Raser from his Historical Collection. t was published by the Marconi Press Agency Ltd.,	Discharger, disc, studded .	Eclateur à disque-muni	torni lisci Scaricatore a disco con	Estallador de disco den-	kenstrecke-glatt Rotierende Scheibenfun-
t was published by the Marconi Press Agency Ltd., The 1914 edition was donated to the Society by late	Discharger, fixed	de prisonniers lateraux Eclateur fixe	punte Scaricatore fisso	tado Descargador fijo	kenstrecke mit Zähne Scheibenfunkenstrecke,
nember, Dexter S. Bartlett who became a Silent Key	Discharger, micrometric	Eclateur à étincelle micro-		Estallador de chispa	fixierte
March 15 1982 The 1915 edition has the name of	spark	métrique	duzione di scintilla micrometrica	micrométrica	
nember Robert W. Ennis - 271-P as donor. We do	Discharger, side electrodes	Eclateur à électrodes laterales	Scaricatore con elettrodi laterali	Descargador, electrodos laterales del	Seheibenfunkenstrecke, Seiten electroder
not have a copy of the 1916 issue. Victor C. Ulrich 962-SGP donated the 1917 edition. We do not have	Discharger, synchronous .	Eclateur synchrone .	Scaricatore sincrono .	Descargador sincrono .	Scheibenfunkenstrecke, synchron
issues covering other years of issue. If any of our	Duplex telegraphy -	Télégraphe duplex	Telegrafia duplex	Telegrafia duplex	Duplex Telegraphie
members have Year Books other than those indicated	Earth connection	Connexion de terre .	Messa a terra	Conexión de tierra	Erd Verbindung
above we would be most pleased to receive them as	Efficiency	Rendement	Rendimento	Rendimiento	Wirkungsgrad
		Haute fréquence	Alta frequenza	Frecuencia, alta	Hochfrequenz
a donation to complete our library and for reference.	Frequency, high		Bassa frequenza	Frecuencia, baja Frecuencimetro	Niedfrequenz Frequenzmesser
a donation to complete our library and for reference.  Anyone knowing how many years this series of Year	Frequency, high	Fréquencemètre	Frequenziometro .	A COLUMN TO THE PARTY OF THE PA	
a donation to complete our library and for reference.  Anyone knowing how many years this series of Year  Books was printed will do us a favor in furnishing	Frequency low	Fréquencemètre .		Instalación meses de	Stronger
a donation to complete our library and for reference.  Anyone knowing how many years this series of Year Books was printed will do us a favor in furnishing this information. We do wish to take this occasion of thanking those above for their donation. Books of	Frequency, low		Impianto generatore , Generatore di corrente		Stromanlage Dynamo (Gleichstrom)
a donation to complete our library and for reference.  Anyone knowing how many years this series of Year Books was printed will do us a favor in furnishing this information. We do wish to take this occasion of thanking those above for their donation. Books of this kind give us a 'window' on certain years of our	Frequency, low	Fréquencemetre	Impianto generatore ,		Stromanlage Dynamo (Gleichstrom)
a donation to complete our library and for reference. Anyone knowing how many years this series of Year Books was printed will do us a favor in furnishing this information. We do wish to take this occasion of thanking those above for their donation. Books of this kind give us a 'window' on certain years of our lives in which we feel the information contained there	Frequency, low	Fréquencemetre	Impianto generatore , Generatore di corrente continua	Generador de corriente continua Interruptor magnético de	Dynamo (Gleichstrom)  Magnetischer Hammerun
a donation to complete our library and for reference.  Anyone knowing how many years this series of Year Books was printed will do us a favor in furnishing this information. We do wish to take this occasion of thanking those above for their donation. Books of this kind give us a 'window' on certain years of our	Frequency, low Prequency meter  Generating plant - Generator, c.c	Générateur	Impianto generatore , Generatore di corrente continua	Generador de corriente continua	Dynamo (Gleichstrom)

Spark quenched Sparking dist mee Starter, automatic

Starter, single-phase

Starter, three-phase.

Station, cavalry Station, high-power.

Station, knapsack ... Station, landing ...

Station, long-distance

Station, radiotelegraph Station, small-power

Switch, aerial change-over

Swiss commutator .

Starter, combined with shunt regulator

Etincelle étouffée

Distance explosive

Démarreur, automatique

Rhéostat de démarrage

Démarreur monophase

Aéroplane (poste d')
Station de ballon dirigeable
Station du type sur voiture

Poste de cavalerie . . . . Station à grande puis-

Poste de débarquement : Poste de grandes distance

Station portative Poste militaire transport-able

Poste radiotélégraphique

Station à faible puissance

Commutateur d'antenne.

Commutateur suisse

Poste dehavresac

Démarreur tri-phasé

avec rhéostat de champ

	Dictionary of	Technical Te	rms—Continued		GREA
ENGLISH.	FRENCH.	ITALIAN.	Spanish.	GERMAN.	
nductance, aerial : .	Inductance d'antenne .	Induttanza dell' antenna	Inductancia de antena	Antenneninduktanz	R
nductance, aerial tuning.	Inductance à syntoniser	Induttanza per la sintoniz-	Indurtancia de sintoni-	Induktanz zum Syntoni-	
nductance, low frequency	le circuit de l'antenne Bobine d'inductance du circuit à basse fréquence	zazione dell' antenna Induttanza per il circuito a bassa frequenza	zación de la antena Inductancia del circuito de baja frequencia	sieren der Antenne Induktanzspule aiedriger Frequenz	
aductance, primary	Inductance primaire .	Induttanza per circuito primario Induttanza sintonizza-	Inductancia primaria . Inductancia primaria de	Primärinduktanz Primärinduktanz zum Ab-	
nductance, primary syn- tonising	Inductance primaire de syntonisation	trice del circuito pri- mario	sintonización	stimmen	
nductance, variable pri- mary syntonising	Inductance primaire vari- able de syntonisation	Induttanza, sintonizza- trice del circuito pri- mario, regolabile	Inductancia variable de sintonización del pri- mario	Veränderliche Primärin- duktance zum Abstim- men	The Radio
nduction coil	Bobine d'Induction .	Rocchetto d'induzione .	Bobina de inducción -	Rhumkorffscher Funkenin- duktor	come to the
nkwriter, Morse	Appareil Morse enregis-	Ricevitore scrivente Morse	Aparto Morse registrador	Schreibempfänger	all the fur
nsulation	Isolation	Isolamento	Aislamiento	Isolierung Isolator, Einfuehrungs	tions had
nsulator, flexible	Isolateur souple	Isolatore, elastico	Aislador flexible	Flexibler Isolator Isolator fur den Emp-	time QRM
nsulator, transmitting .	Isolateur de transmission	recezione Isolatore dell' antenna di	ceptor Aislador para circuito	fangsdraht Isolator fur die Sender-	ity over be
nterrupter	Rupteur	Interruttore	Interruptor	Unterbrecher	CQD or SC
nterrupter, current- nterrupter, electrolytic nterrupter, turbine	Rupteur de courant Rupteur électrolytique . Turbo-rupteur à mercure	Interruttore di corrente . Interruttore elettrolitico . Interruttore a turbina .	Interruptor de corriente . Interruptor electrolítico . Interruptor de turbina .	Stromunterbrecher Wehnelt Unterbrecher Quecksilberturbinen- unterbrecher	all traffic
and the second	Transformateur d'oscilla-	Transformatore delle cor-	" Jigger "	Jigger, Selbst-induktion	from the circa 1910
ligger, balanced	tions Jigger compensé	renti oscillatorie Transformatore ad alta	Jigger compensador .	des Erregerkreises Jigger, bilanzierter	DIVISION
igger, primary	Primaire de transforma-	frequenza compensato Circuito primario del	"Jigger," primario del .	Primär-Jigger	things star
igger, secondary	Secondaire de transforma- teur d'oscillation	transformatore delle correnti oscillatorie Circuito eccundario del transformatore delle correnti oscillatore	" Jigger," secundario del	Sekundär-Jigger	The follow
Key-sending	Manipulateur	Tasto manipolatore di trasmissione	Manipulador	Taste	Foley who furnished
Custo for	Bouteille de Leyde.	Bottielio di I sida .	Botella de Leyden	Leydener Flasche	early days
eyden jar eyden jar, battery of .	! Batterie de bouteilles de	Batteria di bottiglie di	Botellas de Levden,	Batterie Leydener Flas-	picked out
amp, tuning-and choke	Leyde Lampe de sintonisation avec bobine de réactance	Leida Lampada di sintonizza- zione con bobina	Bateria de Lámpara de sintonización y de reactancia	Syntonisierlampe mit Im- pedanz	also Dulut
ightning arrester. (See Arrester, lightning)	avec bouine de reactance	Zione con booma	y de reactancia	pecians	about 191
ast, portable lasts, steel sectional .	Mat, portatif	Albero, portatile Albero di acciaio diviso in sezioni	Mástil, portátil Mástil de secciones de acero	Tragbarer Mast Stahlmasten in Teilen	This document Terrell, Bo
last, telescopic	Mât, télescopique	Albero telescopico . Apparecchio microfonico . Micrometro per Scintilla . Gruppo convertitore con	Mástil telescópico Aparato microfónico Micrometro de chispa	Teleskopmast Microphon-Apparat Funkenmikrometer Wechselstromgenerator	Joe McKin Butterwork
fultiple transmission and reception	teur avec éclateur à disque Transmission et réception multiples	scaricatore a disco  Transmission e Ricezione multipla	nador con estallador de disco Transmisión y recepción múltiple	kombiniert mit Rotier- ende Funkenstrecke Vielfach Übermittlung und Empfang	Hallock, C H. Linden
Oscillations, electric	Oscillations électriques . Surcharge .	Oscillazioni elettriche	Oscilaciones electricas - Sobrecarga -	Elektrische-Schwingungen Überlast	RADIO DI
lant, radiotelegraphic .	Installation radiotélé- graphique	Impianto radiotelegrafico	Instalación radiotelegra- fica	Radiotelegraphische An-	Established
otentiometer	Potentiometre	Potenzioinetro	Potenciómetro	Potentiometer	Mr. T 1912 - A.
ladiogoniometer	Radiogoniomètre	Radiogoniometro	Radiogonometro	Radiogoinometer Reichweite	to London
deceiver arrangement .	Appareil récepteur - Dispositif de réception .	Apparecchio ricevitore . Dispositivo di ricezione .	Receptor Dispositivo de recepcion.	Empfänger Empfangsvorrichtung	went to N
deceiver, balanced	Récepteur compensé Récepteur souple	Rivelatore compensato . Ricevitore flessibile	Receptor compensador . Receptor flexible	Empfanger, bilanzierter Empfanger	ed Baltimo
Receiver, vacuum valve	Récepteur à valve d'oscil- lation Rectificateurs	Ricevitore con valvola a vuoto Raddrizzatori di corrente	Receptor de válvula de vacio Rectificador	Vakuum ventil Emplauger	ESTABLIS
elay elay H.T.	Relais . Relais pour haute tension	Soccorritore	Relevador	Ausgleicher Relais Hochspannungrelais	Office Dis
telay magnets	Aimants du relais	Magneti di soccorritore .	Imanes del relevador .	Relais-magnete	with John
desistance, high	Haute résistance	Alta resistenza	Resistencia, alta	Hoher Widerstand Niedriger Widerstand	Thompson 1914 - Ins
esistance, starting esistance regulating	Rhéostat de démarrage . Rhéostat de champ .	Reostato di avviamento .	Resistencia de regulación	Anlasser Regulierwiderstand	Thompson.
tery)	Salle des accumulateurs ;	Stanza per la batteria di accumulatori	Sala de acumuladores (Bateria)	Akkumulatorenraum	1914 - Dil
coom, operating	Salle de manipulation et réception	Ufficio radiotelegrafico .	Sala telegráfica	Bedienungszimmer fur die Drahtloseinstallation	(Ch 1915 - Bla
oom, transmitting.	Chambre des appareils de transmission	Locale di trasmissione	Sala de manipulacion .	Senderraum	1915 - Bia period 1916 - Ap
addles, pack	Selles de paquetago .	Basti	Bastes	Packsattel	reope
creening box. eries rheostat bip station bort circuiting device	Boîte de garde Rhéostat en serie Station de bord Dispositif de mise en court	Cassetta di protezione Reostato in serie Stazione navalc Dispositivo di messa in	Caja de resguardo . Reostato en serie . Estación de á bordo . Dispositivo de corto cir-	Schutzkasten Serien Widerstand Schiffstation	remained in 1917 - Cle
hunt, highly inductive .	Shunt à pouvoir inductif	corto circuito Shunt ad alta induzione	cuito Shunt altamente induc-	Kurzschliesser Shunt mit hohe Selbstin-	Chica
hunt, non-inductive	Shunt, non-inductif	Circuito in derivazione	tivo Shunt, no inductivo	duktion Nebenschlusz	reopened u 1920 - Dis
ignals, balancing	Standard and	non-induttivo Segnali equilibrati	Señales compensadores	nduktionsfreier Balanciersignale	1927 - Du
ignals, telephone pan park	Signaux téléphoniques . Haubanage .	Segnali del telefono Campata	Señales telefónicas Tirante.	Telephonsignale Abspannung	St. Pa
park coil, with hammer- break park gap park gap, micrometric	Etincelle Bobine d'induction à in- terrupteur à marteau Eclateur à étincelle Eclateur à intervalle	Scintilla Rochetto d'indusione a martello Oscillatore Oscillatore micrometrico	Chispa .  Bobina de chispa con in- terruptor de martillo Estallador de chispa	Funke Funkeninduktor mit Hammerunterbrecher Funkenstrecke	Dist. 8 CL
park micrometer park gap, multiple	micrométique Micrométre à étincelles . Eclateur en série .	Micrometro di scintilla . Oscillatore multiplo	Estallador micrometrico  Micrometro de chispa  Estallador de chispa	Micrometer Funkenstrecke Funkenmikrometer Unterteilte Funkenstrecke	11-18-12 J
Spark gap, quenched	Eclateur pour étincelle	Spinterometry and	Estanador de chispa múltiple	Unterteilte Funkenstrecke	1010 10-1-1

Descargador de chispa extinguida Chispa extinguida . Distancia explosiva Reostato de arranque, automático Reostato de arranque v regulador de campu combinados

Reostato de arranque monofásico Reostato de arranque

Estación para aeroplano . Estación para globos

Estación tipo de carros -Estación de cavalena . Estación de gran potencia

Estación de desembarco

Estación de gran alcance

Estación portátil Estación militar portátil.

Estación radiotelegráfica. Estación de pequeña potencia Conmutador suizo .

Conmutador para cambio de hilos de antena

Estación de mochilas

dirigibles

trifásico

cillazioni amorzate

Distanza esplosiva Avviatore automatico

Reostato di avviamento

combinato con regola-tore in decimazione

Avviatore per corrente monofase Acciatore per corrente

Stazione del tipo su carri

Stazione per cavalleria . Stazione di grande potenza

Stazione per aeropiano

Stazione per aeronave

Stazione da zaino . Stazione da sbarco. Stazione ultrapotente

Stazione portatile . Stazione militaire mobile .

Stazione fadiotena Stazione di piccola potenza Commutatore tipo avizzero

Commutatore dell'antenna

Scinti a smorgata

empite

Funkenstrecke

Einphasenanlasser

Dreiphasenanlasser

Plug-zeug Station Luftschiffstation

Tomisterstation

Landung-station Radiotelegraphische

Tragbarestation Tragbare Militarstation

Schweizerische Kommutator

(Continued on Page 38)

Anlasswiderstand mit Ne-

Karren station. Fabribar-Kavalleriestation

Grossstation

Selbstanlasser

Löschfunke

Funkenstrecke

#### EAT LAKES

### Radio Inspection Services 1912 - 1930

#### BRIEF HISTORY

adio Inspectors [ Government - U.S. ] didn't to the "Lakes" before 1912 so we can think of e fun the operators on both land and ship stahad on the lakes, jamming each other and at QRMing others when social contacts had priorer business. The amateurs had fun too. They often called on a ships frequencies with fake or SOS calls or joined in the fun of jamming affic. It was indeed quite a mess as you may e by glacing over the 'news clips' saved for us the Detroit, Buffalo, Cleveland and other papers 1910. With the establishment of the RADIO ON in the Department of Commerce in 1911 started to change.

ollowing listing of assignment of the "Feds" on akes is taken from the records of William R. who was Division Historian about 1953 and ned me much historical information about the days of the Radio Division of DOC. I have out those who saw duty at Great Lake points ly - Chicago, Detroit, Cleveland and Buffalo, ouluth). This covered a period of duty from 1912 until 1930.

locument was compliled with the aid of Messrs I, Benj. Wolf, V.Ford Greaves, Edw. Lovejoy, Batcheller, Theodore Deiler, James Chapple, cKinney, Geo. Wiltse, Charles Kolster, Walter worth, Ken. Clark, Emory Lee, H.L. Hayes, Joe k, C.D. Guthrie, Robt. Woolverton and Bernard iden. It should be quite authentic!

#### DIVISION - DOC. BRIEF HISTORY

shed - July 1 1911 New York City Ir. Terrell assigned N.Y. R.Y. Cadmus - S.F. A. C. Pickells added to staff. R.J. Terrell went don as Delegate to IRC. Returning - Pickells to New Orleans. Howard was employed and assign

BLISHMENT OF GREAT LAKES OFFICES Dist. 8 established at Cleveland Nov. 18 1912. ohn F. Dillon and Chicago, Dist. 9. with Roy E.

Inspector W. C. Hensgen to Chicago relieved son.

Dillon to Chicago and Cleveland as Chief. (Chicago office closed)

Blankenship reopened Chicago office for short eriod of time

Appears Dillon moved from Cleveland to Chicago eopening later office and closing Cleveland. He ed in Chicago until April 1917.

Cleveland office moved to Detoit (Permanent). hicago office closed during entire war and not

ed until Mr. Dillon returned in June 1919. District 8 Buffalo - Martin W. Grinnell assigned Duluth - George S. Turner, R.I. ( Also had

t. Paul and Kansas City in his jurisdiction.

#### DIVISION SUPERVISORS PRIOR 1932,

CLEVELAND

12 John Dillon 6-1-16. Closed Reopened at Detroit 10-1-17. Samuel Edwards 6-1-32 Emory Lee.

DIST. 9 CHICAGO

11-18-12 Roy Thompson (?)(1914) W.O. Hansgen closed 6-15-14. Reopened 7-16-15 Charles Blankenship 6-1-16 John Dillon 7-29-17, Samuel Edwards 10-1-17 (Closed); 6-25-19 John Dillon; Charles Kolster 10-21-20 L.R. Schmidt 7-18-22; E.A. Beane 12-16-27 Harold D.

#### INSPECTOR ASSIGNMENTS & OFFICES - 1934

CHICAGO - District No. 18

H.D. Hayes, Ispt. in Chg, Jesse E. Brown, Francis V. Sloan and H.T. Gallsher, Radio Inspectors.

DETROIT - District No. 19

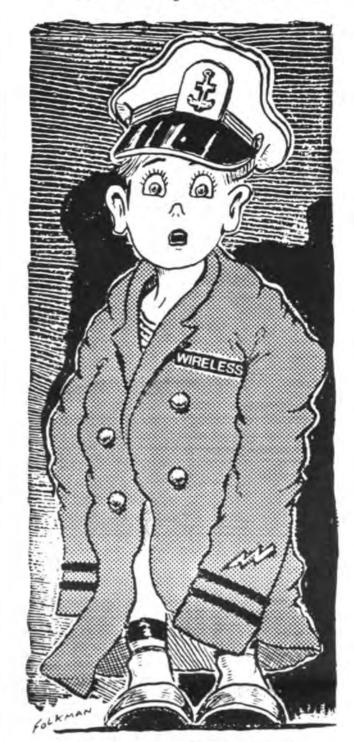
Emory H. Lee, Insp. in Charge. Lamar A. Newcomb, John A. Russ, Ralph L. Clark, Richard J. Cotton, RI

BUFFALO, NY - District No. 20

Forest F. Redfern, Insp. in Chg. Frank J. Smith RI. (37) =

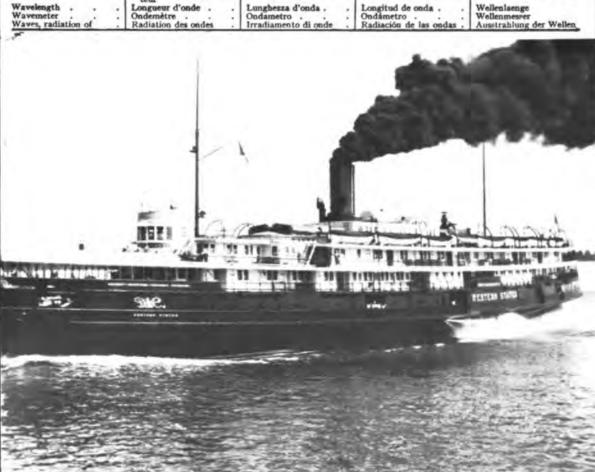
English.	FRENCH.	ITALIAN.	SPANISH.	GERMAN.
Switch, aerial heating	Commutateur, échauffe- ment d'antenne	Interruttore per riscalda- mento dell'antenna	Conmutador de seguridad contra calentamiento	Umschalter zum heize der Antenne
Switch, automatic . Switch, automatic field break	Interrupteur automatique Interrupteur automatique d'excitation	Interruttore automatico . Interruttore automatico ad eccitazione	de la antena Interruptor automático . Interruptor automático del campo	Selbsttactiger Schalter Selbsttactiger Magnet- ausschalt
Switch, carbon break .	Interrupteur à contacts de charbon	Interruttore a carbone .	Interruptor con contactos de carbón	Kohlenschalter
Switch, change-over . Switch, change-tune .	Commutateur de longeurs d'ondes	Commutatore Commutatore di sintoniz- zazione	Conmutador	Umschalter Wellenumschalter
Switch, charging	Interrupteur de charge . Interrupteur avec coupe	Interruttore di carica , Fusibile ed interruttore	Conmutador de carga . Interruptor con fusible .	Ladeschalter Schalter und Sicherun
Switch, double-bladed knife	Interrupteur bipolaire à	Interrutore doppio a col-	Interruptor de cuchillo,	kombiniert Doppelmesserschalter
Switch, double-pole . Switch, double pole,	Interrupteur bipolaire . Commutateur bipolaire à	Interrutore bipolare . Interruttore bipolare a	Interruptor bipolar . Conmutador bipolar de	Zweipoliger Schalter Zweipoliger Umschalter
double throw Switchboard, d.c. and a.c.	deux directions Tableau de distribution pour courant continu et alternatif	doppio effetto Quadro di distribuzione per corrente continua ed alternata	dos posiciones Cuadro de distribución de c.a. y c.c.	Schalttafel fuer Gleich u Wechselstrom
Switch, field-break	Interrupteur de l'excita-	Interruttore ad eccita-	Interruptor del campo .	Magnetausschalter
Switch, high-tension .	Interrupteur pour haute tension	Interruttore per alta ten- sione	Interruptor de alta ten- sión	Hochspannungschalter
Switch, high-tension re- mote control	Téléinterrupteur pour haute tension	Interruttore ad alta ten- sione comandato a dis-	Teleinterruptor de alta tensión	Hochspannungsfern- scha
Switch, knife	Interrupteur unipolaire a	Interruttore a coltello .	Interruptor de cuchillo .	Messerschalter
Switch, main Switch, oil-break	Interrupteur principal . Interrupteur à bain d'huile	Interruttore principale . Interruttore ad olio .	Interruptor principal Interruptor con baño de aceite	Hauptschalter Oelschalter
Switch, press (toggle) Switch, quick-break	Interrupteur à pression . Interrupteur à rupture brusque	Interruttore a pressione . Interruttore a scatto rapide	Interruptor de tornillo . Interruptor de rotura brusca	Druckschalter Momentschalter
Switch, single-pole Switch, three-phase	Interrupteur unipolaire . Interrupteur pour courant	Interruttore unipolare . Interruttore tripolare .	Interruptor monopolar . Interruptor trifásico .	Einpoligerschalter Drehstromschalter
Switch, three-way .	Commutateur à trois directions	Commuttatore a tre vie .	Conmutador de tres pasos	3 Wege Umschalter
Switch, voltmeter .	Interrupteur du voltamètre	metro	Interruptor para volti- metro	Voltmeterumschalter
Switch, wave-changing	Commutateur pour change- ment de longeur d'onde	Commitatore d'onda .	Conmutador de cambio de onda	Wellen Umschalter
Syntonisation Syntonised wireless tele- graphy	Syntonisation . Talégraphie sans fil syn- tonisée	Sintonizzazione Radiotelografia sintonica.	Sintonización Telegrafia sin hilos sin- tonizada	Abstimmung. Abstimmbare Drahtle telegraphie
Table, operating	Table de manipulation .	Tavola per il servizio radio-telegrafico	Mesa de aparatos	Radiotelegrafischer Be nungstisch (Apparatti
Tapper . Telegraphy, directional	Frappeur Radiotélégraphie dirigée.	Decoherer Radiotelegrafia a sistema	Decobesor de martillo . Telegrafia sin hilos diri-	Klopfer Gerichtete Drahtlose T
wireless Transformer	Transformateur	dirigibile Transformatore	gida Transformador	graphie Transformator
Transformer, high-fre- quency oscillation	Transformateur d'oscilla- tion à haute fréquence	Transformatore delle cor- renti oscillatorie ad alta frequenza	Transformador de oscila- ciones de alta frecu- encia	Umformer fuer Hock quenzschwingungen
Transformer, oscillatory .	Transformateur d'oscilla-	Transformatore delle cor- renti oscillatorie	Transformador oscilatorio	Oscillationsumformer
Transmitting arrangement		Dispositivo di transmis-	Dispositivo de transmision	Senderanordnung
Transmitter cavalry .	Transmetteur pour cavalerie	Transmettitore di sta- zione per cavalleria	Transmisor para estación de cavaleria	Kavalleriesendeappara
Transmitter, inductive .	Transmetteur & couplage inductif	Transmettitore ad acco- piamento induttivo	Transmisor de acoplami- ento de induccion	Gekoppelte Sender
Transmitter, sharply-tuned	Transmetteur à syntoni- sation aigüe	Transmettitore acuta- mente sintonizzato	Transmisor de sintoniza- ción aguda	Scharf abgestimmte
Transmitter, simple (P.A.)	Dispositif d'emission directe	Transmettitore semplice .	Transmisor senciblo .	Einfacher Sender
Tremblers Trembler, cantilever Trench, covered in for	Canalisation souterraine	Interruttore a martello . Fossa coperta per cavi	Tembladores Temblador de canecillo . Zanja cubierta para cables	Abgedeckter Kabelgrai
Tube, ebonite	Tube en ébonite	Tubo di ebanite	Tubo de ebonita	Ebonitroehre
Tuning	Syntonisation non algue.	Sintonizzazione piana .	Sintonización aplastada .	Abstimmen Unscharfes abstimmen
Tuner, multiple Tuning, note Tuning, note and wave	Syntonisateur multiple . Hanteur de la note Note et onde de syntoni-	Sintonizzazione della nota Sintonizzazione della nota Sintonizzazione della nota	Sintonizador múltiple Sintonización de la nota. Sintonización de la nota y	Vielfach Abstimmappa Tonhöhe der abstimme Abstimmen von Tonh
Tuning wave	onde de syntonisation . Valve .	e dell' onda Sintonizzazione della onda Valvola	de la onda Sintonización de la onda. Válvula	und Welle Welle der Abstimmung Ventil
Valve, vacuum Voltage	Valve à vide	Valvola vuoto	Válvula de vacio	Vakuum ventil
Voltmeter, a.c.	Voltmetre pour courant alternatif	Voltometro per corrente alternata	Voltaje. Voltimetro c.a.	Spannung Voltmeter fur Weck strom
Voltmeter, aperiodic . Voltmeter, d.c	Voltmetre apériodique . Voltmetre pour courant continu	Voltometro aperiodico . Voltometro per corrente continua	Voltimetro aperiódico . Voltimetro c.c	Aperiodisches Voltmete Voltmeter fuer Gleic strom
Voltmeter, hotwire Voltmeter, switch	Voltmêtre à fil chaud . Interrupteur de volt-	Voltometro a filo caldo . Interruttore per volto-	Voltimetro térmico . Voltimetro, interruptor	Hitzdrahtvoltmeter Voltmeterumschalter
Wagon apparatus	Woiture portant les ap-	metro Carro per gli apparecchi.	para Aparatos sobre carros .	Apparatekarren
Wagon, dynamo	pareils Voiture portant le généra- teur	Carro per il generatore .	Dinamo sobre carros .	Kraftkarren-Kraftwage
Wavelength	Longueur d'onde Ondernètre	Lunghezza d'onda Ondametro	Longitud de onda Ondámetro	Wellenlaenge Wellenmesser Ausstrahlung der Welle

## The Prize Winner



"HEY, MA, WAS GRANDPA WEARING THIS WHEN HE FIRST MET GRANDMA ? "

We award Ralph C. Folkman 586-SGP, on behalf of its members the Society's BLUE RIBBON for the above cartoon. We think it is perhaps the best of the prodigious number he has so generously furnished over the many years. Ralph has the rare ability of catching vignettes of experiences in the life of a radioman that we all cherish. Few possess the gift or are as dedicated to both their art and to the Society as Ralph has been. We all delight in reviewing his cartoons and we cherish the memories he brings us in reminiscing our by-gone days through his art work. "Ralph, We all join in presenting this Blue Ribbon to you - Thank you." S/ Bill Breniman - for our members.



"What's all this about AIR POLLUTION ?" asked the S.S. Western States/WBD as she huffed and puffed and BLEW HER STACK! She was on the daily run between Detroit and Cleveland during the 1920's. Her sister ship, Eastern States ran opposite. Furnished by Ralph Folkman. Photo from the Cordo Collection.



The North Atlantic drove 'em frantic, some some operators claim ... while the South Pacific was terrific ... (With its hula hula fame). But thos who served apprentice—ship... sailing the GREAT LAKES, got their fill of operating skill ... and a lot of "what it takes."

### Ship's Generator QRM-The Culprit



In this ULTRA MODERN pushbutton age in which we live, it's so easy to shove time back -- whether be it instant replay of some sports action or a nostalgic visit to a long-past period via the late, late movies.

My method of "going back" is less sophisticated. It's done by the way of old logbooks, dog-eared journals, and the like. The latest forage into the past took me back sixty-four years. Here 'tis:

The Marconi Wireless Telegraph Company maintained its Great Lakes Offices in the fifteen-hundred block on St. Clair Avenue, Cleveland, Ohio, in the early twenties. Wireless was comparatively young and its practical use aboard ship was rapidly being recognized, with installations aboard many passenger and freight vessels becoming mandatory.

On April 29, 1922, I was sitting in the waiting room, sweating it out with several other wireless operators who were seeking ship assignments. It was not unlike the scene in a doctor's office, except that there was no pretty receptionist to announce, "Doctor will see you now."

Instead, we were summoned into the manager's office by a noisy buzzer overhead. Fred Siegel, the "boss man" had a telegraph key on his desk and would call us, in code, via the buzzer. If one did not respond immediately to his name being keyed on the buzzer, he lost his turn in the "big office" where assignment papers were waiting.

Siegel was a dye-in-the-wool code man and believed that operators should converse in dots and dashes, their exclusive language. I was facing him within seconds after my name buzzed and quickly learned that I had drawn the City of Erie, a side-wheel passenger vessel plying the night run between Cleveland and Buffalo. Before departing that office I had the pleasure of meeting and chatting with the operator who had served on that ship the previous season.

"It's a good job," he explained, "But don't let that 'whining' generator that lights up the ship get you down."

On the first trip to Buffalo I learned just what he had meant! Without benefit of loudspeakers in those days, the operator when on duty, sat with headphones clamped over his ears, and on the ERIE it meant listening to a continual WOW WOW WOW WOW from the main generator that supplied lighting power for the vessel. It was not unlike a wavering siren that competed with signals from other ships and shore stations around the lower Lakes.

A sinple noise filter on that generator, I confidently thought, will eliminate the interference, and proceeded to go below to inform the enineroom crew of my plans. Face to face with the Chief whose visored cap was askew to the left side of his head (balancing his tobacco-puffed cheek on the right) I explained how I'd like to install a noise filter on his generator so we might have some peace in the wreless shack.

"You're new here, aren't you?" he growled. "We had lights on this ship many years before that danged wireless came along." With his eyes narrowing to mere slits he added, "Now get up to your shack and do your job and I'll stay here and do mine!"



The City of Eric at Toledo, Ohio. Photograph by L. W. Sullivan, courtesy Richard V. Cordo



Back on watch, the whining generator noise still dominant in my 'phones, I realized that the trouble would have to be corrected at my end — I didn't stand a chance in that engineroom down below! If I could just isolate my equipment from the ship's "ground". Then I remembered that my wireless receiver might work nicely using a "counter-poise" instead of a ground. A counter-poise was actually a second antenna below the regular antenna. It had become quite popular with hams and in commercial work during the twenties.

Then I remembered the iron railing that circumvented the ship, coming from way up forward and passing just outside the shack on the stern. I uncoiled a length of wire and stepped out onto the deck into fog thick as pea soup. Our fog whistle had been blowing at frequent intervals as the vessel literally groped its way along towards Buffalo. With the wire clamped to the railing, I fastened the other end to the ground post on the big cumbersome Marconi receiver, actually transforming that railing into a makeshift counterpoise under the ship's regular antenna.

Back inside out of the "thick" weather, I clamped the headphones on and immediately noticed that the "genny" noise was gone! In its place, numerous signals were rolling in from ships in the Atlantic from Maine to Florida and even down in the Gulf. I had done it, and without having to deal with the "tobacco-chewing" chief! Reception was excellent, through noise-free conditions. At six A. M. I disconnected the temporary railing hook up so that early-rising passengers on their brisk walds around the decks wouldn't stumble over it, and went below for breakfast.

One person was at the officers' table in the dining room. The ship's pilot, John McCleod, was fussing over black coffee. I could see he was in a foul mood so I hit him with "Morning, sir. I've got good news that'll cheer you up." I explained how I had finally solved the problem that had bugged the wireless room, ending with, "Now that should make you feel better."

"I'll bet, he grunted. "that what you did is what caused my problem!" He shakily explained how the ship, in this dense fog, had strayed way off course and, as the fog partially lifted, our starboard paddle wheel was stirring up mud from the bottom off Dunkirk, New York. Nothing like this had ever happened before. Beside the dangerous aspect, the incident had seriously dented the pilot's pride. We arranged to repeat the railing hook-up when safely tied to the dock in Buffalo.

McCleod watched the compass as I connected the wire back aft, then he trotted back and breathlessly explained how the compass had done flip-flops when contact was made. "For Gawd's sake," he gasped, don't ever do that again while we are underway, no matter how well it makes your wireless work. And don't mention this to a soul, -- I've got a lot of explaining to do in the ship's log!"

A week later, thinking all was forgiven and forgotten, I jokingly mentioned that I was working on a device to clean up the noise problem -- but he never let me finish. To him it was still a touchy subject. He hurriedly left the dining room, his cakes and sausage uneaten.

Eventually, through proper channels, the counterpoise system went into service and the compass was recalibrated to meet the new condition. Although for obviously good reasons our dining room conversations never again touched on the subject, both ends of the CITY OF ERIE were now happy!

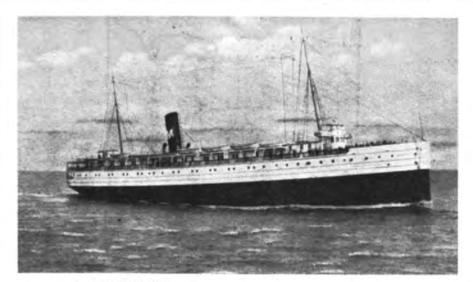
# # # #

From INLAND SEAS, quarterly Journal of the Great Lakes Historical Society, vol. 32 Winter 1976 p. 294. Wm D. Ellis, Editor Phone: (Cleveland) 216/835-9930.
Researched by Ero Erickson (312) 685-6641

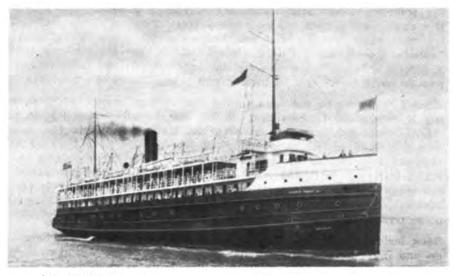
Mr. Ralph C. Folkman W8AF, is a native of Cleveland who served as wireless operator on many Great Lakes vessels during the 1920's and for 38 years in the radio control room and CW section of the Cleveland Police Department's low frequency AM station WRBH which he designed and built. He is an excellent cartoonist, much of his work having been published by the Society of Wireless Pioneers, Santa Rosa, CA, of which he is a Director.

CONTRACTOR OF THE PROPERTY OF

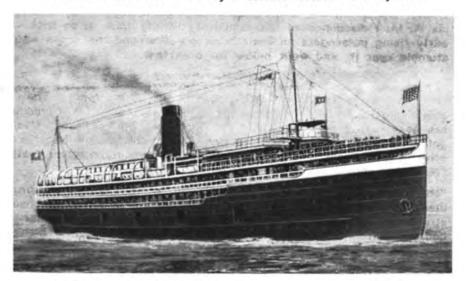
## INLAND SEAS PASSENGER & CRUISE SHIPS - 1920'S



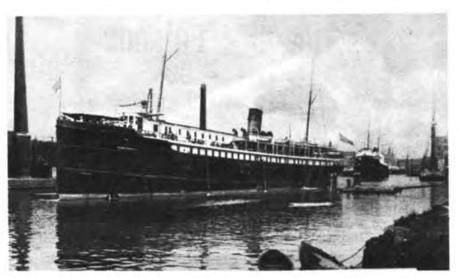
S.S. MANITOU-WFW Michigan Transportation Co. R.T. "Ray" Warner Collection



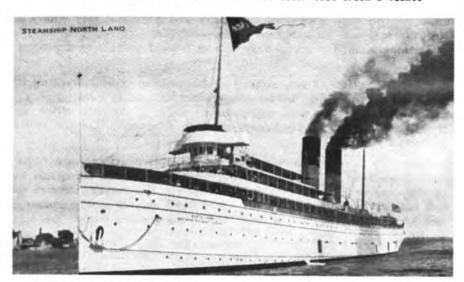
S.S. INDIANA - WFC Goodrich Transit Co. Green Bay & Mackinac Island. R.T. Reynolds.



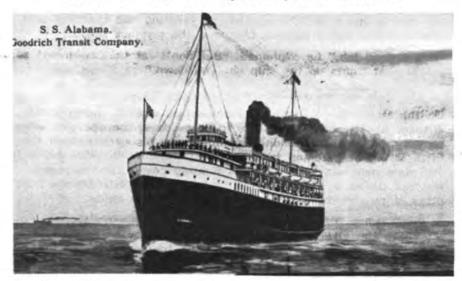
S.S.CITY OF GRAND RAPIDS - WDS Goodrich SS.Lines Chicago, Grand Have, Muskegon, Grand Rapids Route.



S.S. VIRGINIA - WFN Goodrich SS.Lines. Milwaukee Nome Port. Later Col. Green's Yacht.



S.S. NORTH LAND - WCN Northern S.S. Co., R.T. "Ray" Warner, 213-SGP Collection.



S.S. ALABAMA - WFB Goodrich Transit Co. Georgian Bay, Green Bay, Mackinac & the Soo.

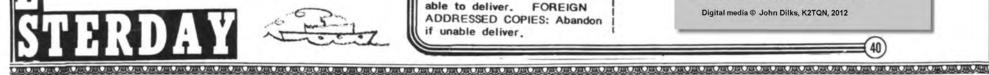
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